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Devoe Marine Coatings
Preliminary Assessment Report
May 31, 2002

APPENDIX E

SITE RECONNAISSANCE INTERVIEW AND OBSERVATION REPORT

APPENDIX E

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

State of California
California Environmental Protection Agency
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630

OBSERVATIONS MADE BY: Greg Sweel & Rania Zabaneh

DATE: April 12, 2002

FACILITY REPRESENTATIVE: Mr. Joseph Pagan
TITLE: Retiree of Devoe Marine Coatings
(Previously Plant Manager & Chemical Engineer)
TELEPHONE NUMBER: (909) 784-2528

SITE: Devoe Marine Coatings
2625 Durahart Street
Riverside, California 92507

EPA ID: CAD 097574073

A site reconnaissance was conducted at the Devoe Marine Coatings (Devoe) site 2625 Durahart Street, Riverside, California) on Wednesday, April 12, 2002. Greg Sweel and Rania Zabaneh of the Department of Toxic Substances Control (DTSC) conducted the site reconnaissance with Mr. Joseph Pagan, a former employee and plant manager of Devoe, from 10:00 a.m. to 12:00 p.m. to gather information on the site location and size, site history, processes used, and any hazardous waste generated, treated, stored, or disposed of on site. The reconnaissance included an interview portion followed by a site tour during which photographs were taken.

The following observations were made during the site reconnaissance:

The site is located on 2625 Durahart Street in Riverside, California. The property occupies 7.5 acres and is located in a light commercial and industrial area. The site. Except for a Soil Vapor Extraction (SVE) System, the site is currently covered with dirt and sparse vegetation. The site is bordered on the north by U.S. Interstate 60, on the

west by Hulen Place, on the south by Massachusetts Avenue, and on the east by Durahart Street. Specifically, Ferguson Heating and Cooling Division is to the south of the Site. U-Haul truck rental company is to the north of the Site. An abandoned cement plant is west of the Site. A welding facility, a printing facility, and several other commercial buildings are also in the immediate vicinity of the Site. The Site is generally flat with a slight slope to the southwest and there appears to be no schools or daycares in the vicinity. Residences are nearby within approximately ½ mile to the south of the site.

The following information was provided by Mr. Joseph Pagan

Mr. Joseph Pagan described in detail how long he had worked there, the history of the ownership of the company, the history of the facility, the layout of the facility while it was operational, the processes that took place in the facility while it was in operation, what chemicals were used, the types of paints that were produced and recalled many other facts.

Mr. Joseph Pagan had been with the company since 1971 and retired in 2000 when the facility was closed down. He was a chemical engineer and worked as the plant manager for Devoe. The Devoe facility was constructed in 1952. It was owned by Harts and Burns which manufactured paints. In 1954, Devoe and Reynolds purchased Harts and Burns and acquired the 2625 Durahart Street facility and continued manufacturing of paints. In 1964, The Celanese Corporation purchased Devoe and Reynolds which eventually sold the trade sales paint and marine paint divisions to the Grow Group, Inc. in 1976. The facility at 2625 Durahart Street was named Devoe Coatings Company and was established as a division of the Grow Group, Inc. In 1995, Imperial Chemicals Industries (ICI) purchased the Grow Group division and is currently known as ICI Devoe Coatings. ICI also owns The Glidden Company, which is an internationally known paint brand name.

The Site formerly consisted of a two-story manufacturing building and several single-story buildings. The site historic layout is shown in Figure 2-2 in the report. The Site used to be asphalt-paved; however, since the buildings were removed the Site is now dirt covered. The Site is partially surrounded on the north and west by a low retaining concrete wall. The southern and eastern perimeters of Devoe are enclosed by a gated and locked chain-link fence topped with barbed wire. These access gates are the only entrances to the facility.

Devoe had two above-ground storage tank farms, which were in use since 1981. One storage tank farm was used to hold resins, and the other was used for solvent storage. Both of the storage tank farms were placed on concrete pads and surrounded by 3-foot concrete berms. The berms served as a secondary spill containment feature. The solvent above ground storage tank farm had a total of 10 tanks of various capacities. Three 8,000-gallon tanks were used to store methyl isobutyl ketone (MIBK), mineral spirits, and xylene. Two 5,000 gallon tanks were used to store naphtha, and wash solvent (50 percent methyl n-amyl ketone and 50 percent xylene). A single 3,000-gallon

tank was used to store mineral spirits. A single 10,000-gallon tank was used to store methyl n-amyl ketone. Two tanks having capacities of 10,000 gallons were used to store storm water. The remaining single 6,000-gallon tank contained an unknown solvent. The above-ground resin storage tank farm also consisted of 10 tanks. Four 10,000-gallon tanks were used to store cellusolve, epoxy resin, alkyd, resin, and n-butanol. Two 5,000-gallon and two 16,000-gallon tanks were also used for alkyd resin and epoxy resin storage. The two remaining 10,000-gallon tanks contained unknown resins. The Site also operated a solvent recycling (distillation) area and a drum/tub cleaning area.

Operations at Devoe consisted of batching pigments, resins, and solvents to formulate paint of a particular color. Paints were then filled into containers and made ready for distribution. Some of the most widely used solvents at Devoe included xylenes, MIBK, and n-butyl alcohol. Methyl ethyl ketone (MEK) and glycol ethers were used in comparatively smaller quantities. The facility also used several pigments. Devoe discontinued the use of chromium-based pigments in January 1992. Overall, the facility's chemical inventory consisted of over 700 different chemicals. Most of the chemicals used by the facility were stored in 55-gallon drums in an asphalt-paved yard. Larger quantities of chemicals were stored in above-ground storage tank areas.

Devoe recycled spent solvents in a solvent recovery still. The solvent recovery process lead to the generation of residue that collect at the bottom of the still. The residue is referred to as the "still-bottom." The still-bottom usually consist of 40-60 percent 1,2,4-dimethylbenzene. During full production, approximately one 55-gallon drum of still-bottom was generated each day.

Over time, the filling of paint containers resulted in the generation of paint sludge. Solvent from the sludge was recovered before disposal. During full production, approximately one 55-gallon drum of paint sludge was generated each day. Various other hazardous wastes consisting of solvent and paint contaminated rags and uniforms and empty paint containers were also generated at Devoe. Such miscellaneous wastes were generated at the rate of approximately one 55-gallon drum per day during periods of full production.

All of these hazardous wastes were placed in 55-gallon drums and stored in the facility's hazardous waste holding area. The hazardous waste holding area was concrete-paved and enclosed by a chain-link fence. Hazardous wastes were held at the facility for 2 to 3 months before they were removed. The hazardous wastes were transported to a Class I hazardous waste landfill for disposal while the paint sludge and the still-bottoms were transported to a cement kiln for incineration.

Waste oil was generated as the result of on-site vehicle maintenance. An independent contractor not affiliated with Devoe conducted the vehicle maintenance. Waste oil generated by the contractor in this process was never stored on-site. A record of the quantity of waste oil generated was not available from Devoe. The waste oil was removed by the contractor and taken to a recycling facility.

Mr. Pagan also described to us what each of the buildings was used for while the facility was in operation. Building 12 was the main office. Buildings 1 and 6 were used as laboratories. Buildings 2,3 & 5 were used for manufacturing paint. Building 4 was used to store pigment. Building 7 was used as a lunch room. Building 8 was a warehouse used for shipping. Building 17 was used for loading and unloading. Refer to Figure 2-2 in the report for the layout of the buildings.

APPENDIX F

SAMPLE PLAN

Field Sample Plan for Preliminary Assessment

**Devoe Marine Coatings
2625 Durahart Street
Riverside, California 92507**

Site EPA ID Number: CAD 097574073
Sampling Date: April 30 , 2002

Prepared by:

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ATTACHMENTS

- A. Site Health and Safety Plan
- B. HML Authorization Request and Sample Analysis Request forms
- C. Figures of TRPH Concentrations at Different Depths
- D. Completed HARP and Post HARP Forms
- E. PID Calibration Information

1.0 OBJECTIVES OF SAMPLING EFFORT

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) will conduct this field sampling effort to gather data as part of a Preliminary Assessment (PA) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Superfund. The PA builds upon the body of information developed during the site screening by verifying and substantiating collected data, collecting additional data through a site reconnaissance visit, and collecting physical environmental samples to analyze for the presence of hazardous substances.

Field sampling will be conducted under protocols accepted by the U.S. Environmental Protection Agency (EPA) as specified by the DTSC Hazardous Materials Laboratory (HML). Specific objectives of the PA with sampling for the Site include:

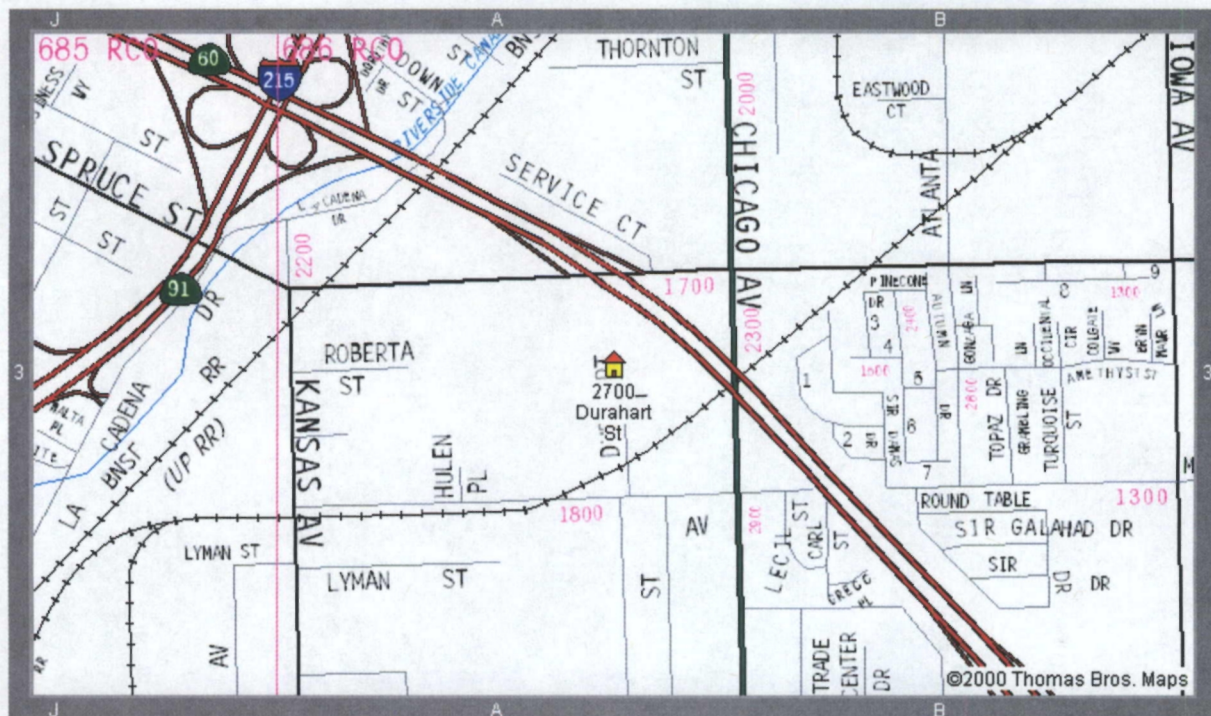
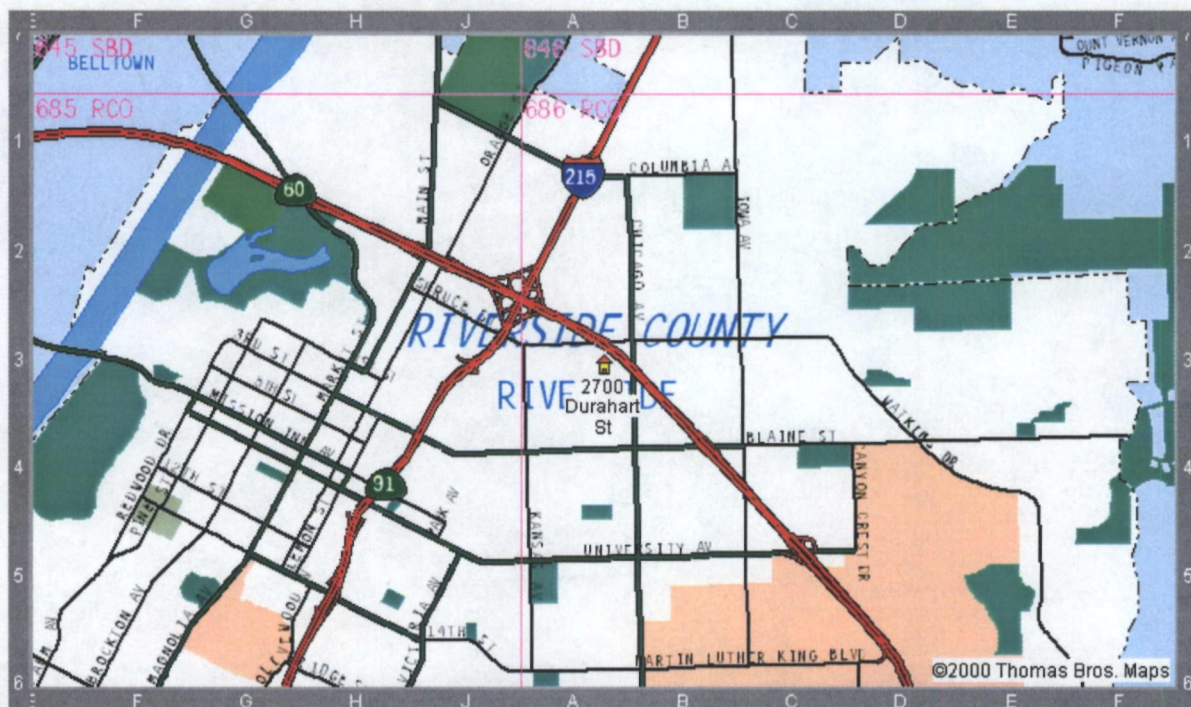
- Determining if a release of hazardous wastes/substances exists at the site.
- Estimating the potential threat to public health and/or the environment posed by the site and providing an indicator or relative risk among sites.

The site being investigated is the Devoe Marine Coatings (Site) in the City of Riverside, Riverside County, California. The Site is in a primarily light industrial and commercial area with residential properties located approximately one-half mile south of the Site. The following contaminants are known to be present, based on previous sampling, in soil below the former underground storage tanks (USTs) at the Site: benzene, toluene, ethylbenzene, xylene, n-butanol, and n-butyl acetate. Additionally, benzene, toluene, ethylbenzene, tetrachloroethene (PCE), 1,1-dichloroethene (DCE), 1,1,1-trichloroethane (TCA), and trichloroethene (TCE) have also been previously detected in on-site groundwater monitoring wells. Potential may exist for contaminant migration to air from the Site. The objectives of DTSC's sampling effort are to determine the presence and measure the concentrations of contaminants in groundwater and soils. In addition, representative soil, undisturbed by Site activities, will be sampled to establish background concentrations for metals. These data will be used to support decision-making efforts by the EPA as part of the PA/SI process.

2.0 BACKGROUND

2.1 Location

The Site is located at 2625 Durahart Street in Riverside, California. The geographic coordinates of the site are 33°59'16.6" N latitude and 117°21'03.15" W longitude (Township 2S, Range 5W, Section 24, San Bernardino Baseline and Meridian, Riverside, 7.5-minute quadrangle). The location of the Site is shown in Figure 2-1 (Site Location Map).



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Figure 2-1 Site Location
Devoe Marine Coatings
2625 Durahart Street, Riverside, California 92502

2.2 Site Description

The site occupies approximately 7.5 acres in a light industrial and commercial area. The site is bordered on the north by U.S. Interstate 60, on the west by Hulen Place, on the south by Massachusetts Avenue, and on the east by Durahart Street. Land use immediately around the site is commercial and light industrial. Specifically, Ferguson Heating and Cooling Division is to the south of the Site. U-Haul truck rental company is to the north of the Site. An abandoned cement plant is west of the Site. A welding facility, a printing facility, and several other commercial buildings are also in the immediate vicinity of the Site. Vegetation is sparse, and the Site does not appear to provide habitat for fauna. All former buildings were demolished and removed in early 2000. The only remaining surface features are a soil vapor extraction system and an associated thermal oxidation unit. The Site is located on alluvial materials consisting mainly of sand-sized particles with minor silts and gravels. The topography of the Site is flat. The Site is located within 2 miles of the Riverside Canal which is the nearest surface water body. The site layout, including former building locations, is shown in Figure 2-2 (Site Layout Map).

The Site formerly consisted of a two-story manufacturing building and several single-story buildings. The site historic layout is shown in Figure 2-2. The Site was asphalt-paved at one time; however, since the buildings were removed the Site is now dirt covered. Historically, there was a dirt area located near the employee parking lot. The Site is partially surrounded on the north and the west by a low concrete retaining wall. The southern and eastern perimeters of Devoe are enclosed by a gated and locked chain-link fence topped with barbed wire. These access gates are the only entrances to the facility.

Devoe had two above-ground storage tank farms, which were in use since 1981. One storage tank farm was used to hold resins, and the other was used for solvent storage. Both of the storage tank farms were placed on concrete pads and surrounded by 3-foot concrete berms. The berms served as a secondary spill containment feature. The solvent above ground storage tank farm had a total of 10 tanks of various capacities. Three 8,000-gallon tanks were used to store methyl isobutyl ketone (MIBK), mineral spirits, and xylene. Two 5,000 gallon tanks were used to store naphtha, and wash solvent (50 percent methyl n-amyl ketone and 50 percent xylene). A single 3,000-gallon tank was used to store mineral spirits. A single 10,000-gallon tank was used to store methyl n-amyl ketone. Two tanks having capacities of 10,000 gallons were used to store storm water. The remaining single 6,000-gallon tank contained an unknown solvent. The above-ground resin storage tank farm also consisted of 10 tanks. Four 10,000-gallon tanks were used to store cellusolve, epoxy resin, alkyd, resin, and n-butanol. Two 5,000-gallon and two 16,000-gallon tanks were also used for alkyd resin and epoxy resin storage. The two remaining 10,000-gallon tanks contained unknown resins. The Site also operated a solvent recycling (distillation) area and a drum/tub cleaning area.

2.3 Operational History

The Devoe facility was constructed in 1952. It is unknown what the property was used for prior to 1952. At the time of construction, the facility was owned by Harts and Burns, Inc. (Harts & Burns). Harts & Burns manufactured paints for trade sales, marine, and industrial maintenance purposes.

In 1954, Devoe and Reynolds purchased Harts & Burns and acquired the 2625 Durahart Street facility. Devoe and Reynolds continued the manufacturing of paints at the Durahart site. Six USTs were installed at the facility in 1956. Four of these tanks had capacities of 2,000 gallons each, and two tanks had capacities of 10,000 gallons each. At the time of installation, the tanks were used to store Solvesso 15 (an aromatic hydrocarbon solvent), xylene, VM&P naphtha (an aliphatic hydrocarbon), toluene, and mineral spirits.

The Celanese Corporation purchased Devoe and Reynolds in 1964. Celanese Corporation eventually sold the trade sales paint and marine paint divisions to the Grow Group, Inc. in 1976. The industrial maintenance paint division was sold to a different company at another location. The facility at 2625 Durahart Street was named Devoe Coatings Company and was established as a division of the Grow Group, Inc. In 1995, Imperial Chemicals Industries (ICI) purchased the Grow Group division and is currently known as ICI Devoe Coatings.

Operations at Devoe consisted of batching pigments, resins, and solvents to formulate paint of a particular color. Paints were then filled into containers and made ready for distribution. Some of the most widely used solvents at Devoe included xylenes, MIBK, and n-butyl alcohol. Methyl ethyl ketone (MEK) and glycol ethers were used in comparatively smaller quantities. The facility also used several pigments. Devoe discontinued the use of chromium-based pigments in January 1992. Overall, the facility's chemical inventory consisted of over 700 different chemicals. Most of the chemicals used by the facility were stored in 55-gallon drums in an asphalt-paved yard. Larger quantities of chemicals were stored in above-ground storage tank areas.

Devoe recycled spent solvents in a solvent recovery still. The solvent recovery process lead to the generation of residue that collect at the bottom of the still. The residue is referred to as the "still-bottom." The still-bottom usually consist of 40-60 percent 1,2,4-dimethylbenzene. During a full production mode, approximately one 55-gallon drum of still-bottom was generated every day.

Over time, the filling of paint containers resulted in the generation of paint sludge. Solvent from the sludge was recovered before disposal. During a full production mode, approximately one 55-gallon drum of paint sludge was generated every day. Various other hazardous wastes consisting of solvent and paint contaminated rags and uniforms and empty paint containers were also generated at Devoe. Such miscellaneous wastes were generated at the rate of approximately one 55-gallon drum per day during periods of full production.

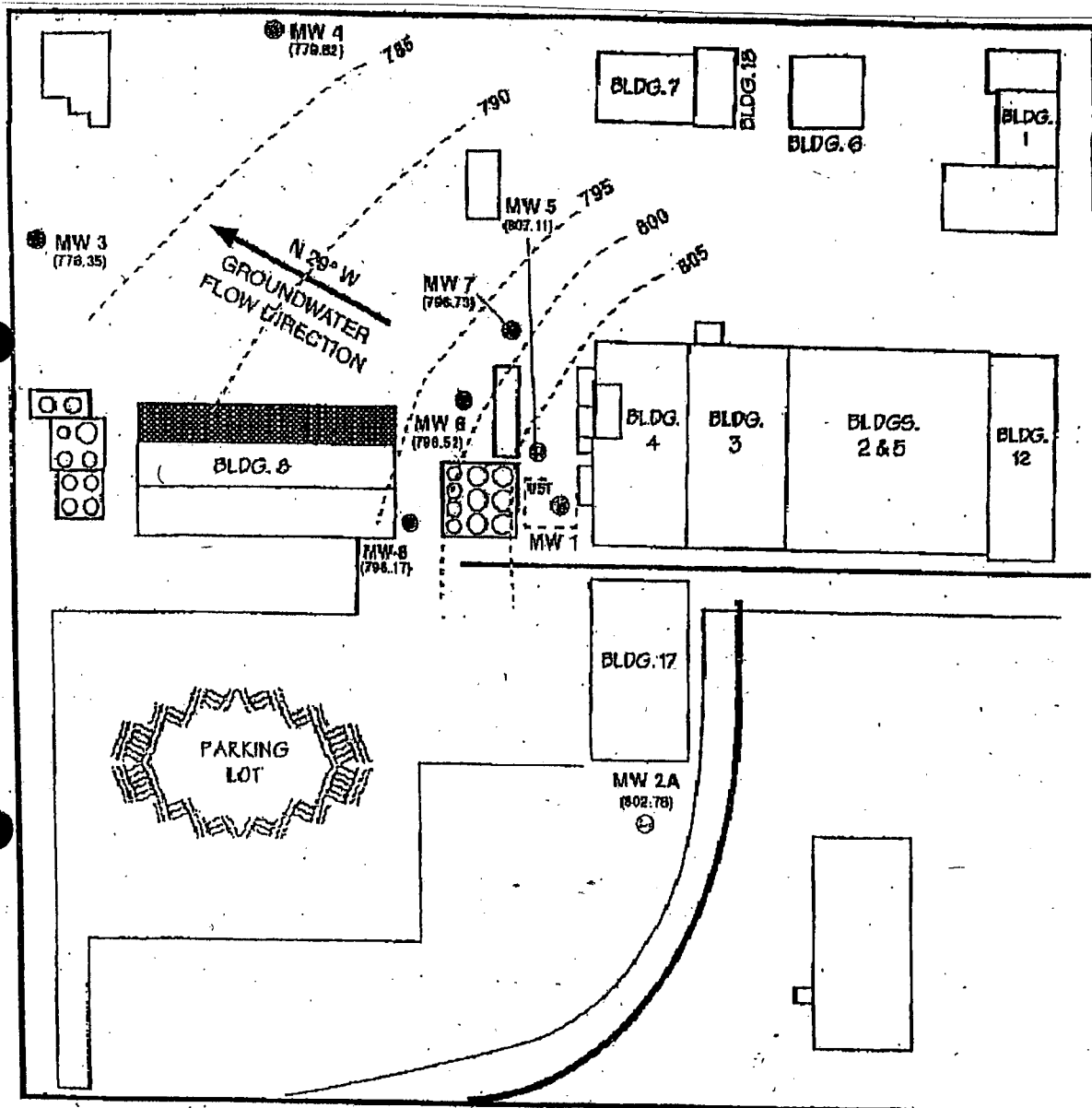
All of these hazardous wastes were placed in 55-gallon drums and stored in the facility's hazardous waste holding area. The hazardous waste holding area was concrete-paved and enclosed by a chain-link fence. Hazardous wastes were held at the facility for 2 to 3 months before they were removed. The hazardous wastes were transported to a Class I hazardous waste landfill for disposal while the paint sludge and the still-bottoms were transported to a cement kiln for incineration.

Waste oil was generated as the result of on-site vehicle maintenance. An independent contractor not affiliated with Devoe conducted the vehicle maintenance. Waste oil generated by the contractor in this process was never stored on-site. A record of the quantity of waste oil generated was not available from Devoe. The waste oil was removed by the contractor and taken to a recycling facility.

The topography of the Devoe facility is generally flat with a slight slope to the southwest. Hay bales, or similar sediment retention devices, have been placed around the southern and western site boundaries subsequent to building demolition. Historically, any runoff generated at the site would be directed to the northeastern corner of the facility. The northeastern corner was surrounded by a concrete retaining wall which prevented the escape of the runoff. Runoff accumulated in this area of the facility during a rainstorm or during cleaning activities was removed by pumping and disposed.

There have been as many as 63 employees at Devoe. Operating hours were from 5:30 am until 4:30 pm Monday through Friday. The facility was closed on weekends.

Devoe Marine Coatings was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) as of October 26, 1990 (CAD097574073). A PA was first conducted on the Site on April 27, 1993. It is listed as a large generator on the Resource Conservation and Recovery Information System (RCRIS) as of March 13, 2002.

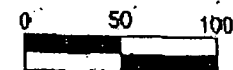


LEGEND

● (802.78) GROUNDWATER MONITORING WELL AND GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL

--- LINE OF EQUAL GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL

Measured April 21, 1997



APPROXIMATE SCALE IN FEET



Figure 2-2 Site Layout
Devco Marine Coatings
2625 Durahart Street, Riverside, California 92502

2.4 Previous Investigations

Following pressure testing of the USTs on October 23, 1984, and the resulting determination that two of the 2,000-gallon tanks failed, numerous soil and groundwater investigations were conducted at Devoe to characterize the extent of contamination, and develop a conceptual design for the remediation of the soil and groundwater contamination.

2.4.1 Soil Sampling

A Phase I Investigation Report, dated April 1991, prepared by Engineering-Science (ES), reported that elevated concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), n-butanol, n-butyl acetate, and total recoverable petroleum hydrocarbons (TRPH) were present in five borings placed adjacent to the former USTs in July 1986. The samples were analyzed for TRPH (EPA Method 418.1), BTEX (EPA Method 8020), and extractable fuel hydrocarbons (EPA Method 8015). In November 1986, one of these borings (Boring #1) was extended to a depth of 105 feet bgs. Analytical results indicated detectable concentrations of contamination at each 10 foot incremental sampling depth. Most significant was the reported detection of xylenes at a concentration of 10,713 mg/Kg at a depth of 105 feet bgs. Five additional borings were installed in February 1988 to delineate the vertical and lateral extent of contamination. Similar constituents were again detected from these borings. Sample locations and estimated contaminant contours are shown in Attachment C. The quality of this data was good based on the laboratory quality control information presented in the report. Enseco Laboratory, a State of California Environmental Laboratory Accreditation Program certified laboratory, performed the analyses and used appropriate test methods.

In October 1990, soil samples were collected during installation of additional monitoring wells and vapor extraction wells. Samples were analyzed for California Title 22 metals. Results indicated that no metals exceeded naturally occurring background levels for western U.S. soils. No site-specific background samples were collected.

2.4.2 Groundwater Sampling

In October 1988, Geological Systems Evaluation Company (Geo SEC) installed monitoring well MW-1. Groundwater was detected in the well at a depth of 98.5 feet bgs. In February 1989, one groundwater sample was collected and analyzed using EPA Method 624. Benzene was detected at 1.1 milligrams per liter (mg/L), toluene was detected at 1.2 mg/L, ethylbenzene was detected at 77 mg/L, and xylenes were detected at 622 mg/L. Floating product approximately three feet in thickness was encountered in MW-1.

In the spring of 1989, three additional groundwater monitoring wells were installed by Geo SEC. All three wells were sampled in July 1989 and analyzed using EPA Method 624. Several chlorinated solvents were detected at low concentrations (single digit parts per billion) from these newly installed wells. Devoe representatives had previously reported that

chlorinated compounds were never routinely used or stored at the site. However, during the recent site reconnaissance interview conducted on April 12, 2002, a Devoe representative did indicate that small quantities of chlorinated solvents were infrequently used and stored in 55-gallon drums at the site. Wells were sampled again in October 1989 with similar concentrations of chlorinated solvents detected.

In October 1990, three additional monitoring wells were installed and three vapor extraction wells were installed and sampled. MW-1 was determined to be damaged at that time. MW-1 was replaced in July 1991 and re-sampled using EPA Methods 601 and 602. Xylenes were detected at a concentration of 37,000 micrograms per liter ($\mu\text{g/L}$). In May 1998, MW-1 was again removed and replaced. Xylenes were detected from MW-1 at a concentration of 46,000 $\mu\text{g/L}$ on February 10, 1999. Benzene was not reported in MW-1 above the detection limit of 250 $\mu\text{g/L}$.

2.4.3 Soil Vapor Sampling

The most recently available data, collected on May 6, 1999, indicates that the soil vapor extraction system continues to remove VOCs from the subsurface. Field screening results (see Reference #3 at the end of the report) report total VOCs from extraction well #6 (EW-6) at a concentration of 3,712 parts per million by volume (ppmV). The influent concentration to the thermal oxidizer unit was reported as 685 ppmV and the effluent concentration was 16.5 ppmV. Speciated VOC data was collected on February 4, 1999. Samples collected and analyzed by a fixed laboratory indicated concentrations of total xylenes from EW-6 at 190 ppmV. Benzene was not reported in EW-6 above the detection limit of 0.8 ppmV. Total petroleum hydrocarbons, reported as gasoline (TPH-g) was reported in EW-6 at a concentration of 390 ppmV.

2.5 Regulatory Involvement

2.5.1 U.S. Environmental Protection Agency (EPA)

Devoe Marine Coatings was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) as of October 26, 1990 (CAD097574073). A PA was first conducted on the Site on April 27, 1993. It is listed as a large generator on the Resource Conservation and Recovery Information System (RCRIS) as of March 13, 2002.

2.5.2 California EPA - Department of Toxic Substances Control (DTSC)

DTSC's Cypress Office has several files regarding the Devoe facility. However, since the Regional Water Quality Control Board - Santa Ana Region (RWQCB-SA) had been the lead agency for the site, DTSC has not assigned a project manager to the facility. The extent of DTSC's involvement with Devoe has been to retain files.

2.5.3 California Regional Water Quality Control Board - Santa Ana Region (RWQCB-SA)

RWQCB-SA has been the lead regulatory agency for the facility. RWQCB-SA reviewed and approved all workplans and environmental investigative activities at Devoe. Engineering-Science (ES), an environmental consulting company, submitted a report, *Report of Phase 1A Investigation and Conceptual Remedial Design for Devoe Coatings, Riverside*, for review to RWQCB-SA in March 1991. After reviewing the report, RWQCB-SA requested that Devoe implement a biannual sampling program for all existing monitoring wells on the property in order to monitor the contaminant levels at the site. RWQCB-SA instructed Devoe to perform the biannual sampling for a year, after which the analytical results were evaluated and further actions were discussed. In 1990, RWQCB-SA required installation of additional groundwater monitoring wells and soil vapor extraction wells.

RWQCB's Well Investigation Program was studying the possibility of a regional groundwater problem in Riverside. However, due to state budget cuts, these studies have been discontinued.

On June 17, 1997, RWQCB-SA issued a determination of No Further Action (NFA) for the Site. The NFA was based on a review of a report entitled "Draft Soil Remediation Closure Report," prepared by Parsons Engineering Science, Inc. (see Reference 2 at the end of the report). In the Case Closure Summary letter, the RWQCB-SA noted that during the 18 months the soil vapor extraction system with thermal oxidizer and catalytic oxidation unit operated (September 1994 to March 1996) approximately 26,000 kilograms of hydrocarbons were removed from the vadose zone. Confirmation soil sample results collected on July 17, 1996, indicated a maximum xylene residual concentration of 688,000 parts per billion (ppb). Groundwater monitoring operated for a total of nine years (1988 through 1997). Free product recovery was initiated on June 20, 1988 and continued until February 1996. The Case Closure Summary letter indicated that no free product had been detected since February 1996. Maximum reported concentrations for the following constituents in groundwater were included in the Case Closure Summary letter: benzene (less than 3,000 ppb); toluene (3,300 ppb); ethylbenzene (51,000 ppb); xylenes (760,000 ppb). These concentrations were all measured in MW-1 on July 25, 1996.

2.5.4 South Coast Air Quality Management District

Devoe had at one time as many as 54 permits with the South Coast Air Quality Management District (SCAQMD). Devoe's SCAQMD permits were for paint blending, pigment blending, resin blending, solvent storage tanks, and resin storage tanks. Currently, the site is permitted by the SCAQMD to operate a soil vapor extraction system and thermal oxidation unit on-site.

2.5.5 County of Riverside Department of Environmental Health

In October 2000, Golder Associates Inc. (Golder) submitted a notification letter to the County of Riverside Department of Environmental Health (RCDEH) for removal of the previously closed in place USTs. On November 8, 2000, RCDEH provided Golder with a letter relating a complaint of improper disposal of paint into a pit near the facilities fence line and also identifying nine locations where additional soil sampling may be warranted. RCDEH validated removal of all tanks and confirmation sampling was done on the Site in 2001 with non-detect results.

2.6 Apparent Problem

Devoe operated six underground storage tanks (USTs) from 1952 until 1983. These tanks were used to store several chemical products including: xylene; toluene; and mineral spirits. Integrity tests conducted on the tanks in 1984 indicated that two of the tanks had leaks. Since then, several soil and groundwater investigations have been conducted on the site to determine the nature and extent of contamination.

Soil samples taken from borings located adjacent to, and below, the USTs have revealed elevated levels of benzene, toluene, ethylbenzene, xylenes, n-butanol, and n-butyl acetate. These compounds were constituents of chemicals stored in the USTs on the Site.

Sampling from on-site groundwater monitoring wells has revealed benzene, toluene, ethylbenzene and xylene contamination above EPA-established health-based benchmark levels. Additionally, tetrachloroethene (PCE), 1,1-dichloroethene (DCE), 1,1,1-trichloroethane (TCA), and trichloroethene (TCE) have also been detected in groundwater. According to a former Devoe employee, chlorinated solvents have been used infrequently in facility operations and stored in small quantities at the Site.

Several groundwater monitoring and soil vapor extraction wells, and a thermal oxidation unit are still present, operating, and detecting residual contamination at the Site.

It is not known whether surface soils were sampled for metallic contaminants and no site-specific background levels for metals in soil have been established

A complaint of improper disposal of waste paint into a pit near the facility's fence line was provided by RCDEH in a letter dated November 8, 2000 (see Reference 4 at the end of the report).

3.0 HAZARD RANKING SYSTEM (HRS) FACTORS

The Hazard Ranking System (HRS) is a scoring system used to assess the relative threat associated with actual or potential releases of hazardous substances from sites. It is the principal mechanism EPA uses to place sites on the National Priorities List. The quality of

data obtained from sampling and analysis at the Site will be sufficient to meet the criteria for usage in the HRS, in accordance with the data quality objectives established by DTSC in this FSP and accepted by EPA.

3.1 Waste Characteristics

There is an unknown quantity of soil potentially contaminated with metal containing paint pigment. A complaint received by RCDEH alleges improper disposal of paint waste into a pit near the facilities fence line. There is an unknown quantity of groundwater potentially contaminated with volatile organic compounds (VOCs). Therefore, sampling of the soil near the facility fence line and groundwater from on-site wells will be performed in order to analyze for metal contamination (soil and groundwater) and VOCs (groundwater).

3.2 HRS Pathways

Based on the most recently available sampling results, soil at the Site remains impacted by VOCs and they are currently being remediated by an SVE system. There is a potential for the presence of a pit used for the improper disposal of waste paint. Although free product has not been detected recently from on-site groundwater monitoring wells and concentrations of dissolved constituents have decreased, there is a potential for the presence of contamination in the groundwater

The following medium/media might have been impacted by a release from the Site:

- On-site shallow soils (within 2 feet of ground surface). Buildings and pavement have been recently removed and exposed soil exists at the site. Surface and shallow soils may contain zinc, barium and lead-based paint pigment.
- On-site USTs have been removed, but are known to have leaked and caused VOC impact.
- Groundwater has been impacted by VOCs. Usable groundwater is encountered at about 103 feet bgs (1992).

3.3 Sampling Recommendations

3.3.1 Soil Sampling

As shown in Figure 3-1, soil samples will be taken at six (6) locations, selected in areas formerly occupied by the hazardous waste storage area, pigment storage area, fence line, and drum/tub rinsing area. At each location a sample will be taken at the surface and at approximately 1 foot bgs. Three (3) additional samples will be collected in areas not suspected of being impacted by facility operations to evaluate site-specific background for metals. Background areas should have the same geologic and soil characteristics as the site. For one of these locations, an additional sample will be taken as a field duplicate

sample to test for variability and quality assurance and quality control (QA/QC) of the analytical methods used.

All soil samples will be collected using disposable plastic scoops and placed into 4 ounce glass jars with Teflon-lined, screw caps. Care will be taken to ensure the threads on the jar are clean before capping. An XRF instrument may be utilized to field screen particular sampling locations and depths. The actual soil sampling locations may be adjusted in the field to avoid obstacles such as debris, large rocks, buried asphalt or cement, utilities, etc.

Samples will be numbered such that the suffix of a soil sample indicates the depth in feet from which the sample was collected. For example, sample number SS-1-0 designates a surface soil sample collected from sample location SS-1 at a depth of 0 (surface) feet bgs, while sample number SS-1-1 designates a soil sample collected from sample location SS-1 at 1 foot bgs. Background soil samples will be identified by a sample number "B" suffix (e.g., SB-1). Duplicate soil samples will be identified by a sample number "D" suffix (e.g., SD-1).

The Devoe site has been identified as a potential hazardous waste site and entered into the CERCLIS database. DTSC will conduct this field sampling effort to gather data as part of a PA under CERCLA. The anticipated sampling date for this sampling effort is April 30, 2002. The following soil samples will be collected and analyzed as part of this effort:

- Thirteen (13) soil samples will be analyzed for metals, which includes one (1) duplicate.
- Three (3) background soil samples will be analyzed for metals.

3.3.2 Groundwater Sampling

As shown on Figure 3-1, groundwater samples will be collected from monitoring wells MW-1 and MW-5. These particular wells are in close proximity to the former UST area and have historically been the most consistently impacted by site related constituents.

If accessible, an attempt will be made to measure groundwater elevations and total well depths at all on-site monitoring wells. An electronic sounder will be used to make the water level measurements. All groundwater samples will be collected with disposable bailers. Prior to collection of groundwater samples, an evaluation of the presence of free product will be made in MW-1 by placing the bailer in the well at the water table interface and allowing potential free product to accumulate in the bailer. The bailer will then be retrieved and any free phase liquids decanted separately. No decontamination of the bailers will be necessary. The electronic sounder will be decontaminated in a series of five-gallon buckets containing a non-phosphate detergent followed by a distilled or deionized water rinse. All purge water will be properly managed and disposed.

The following groundwater samples will be collected as part of this effort:

- Two (2) groundwater samples will be analyzed for VOCs.
- Two (2) groundwater samples will be analyzed for metals.

Note: If free product is detected in MW-1, then an additional sample will be collected for VOC analysis.

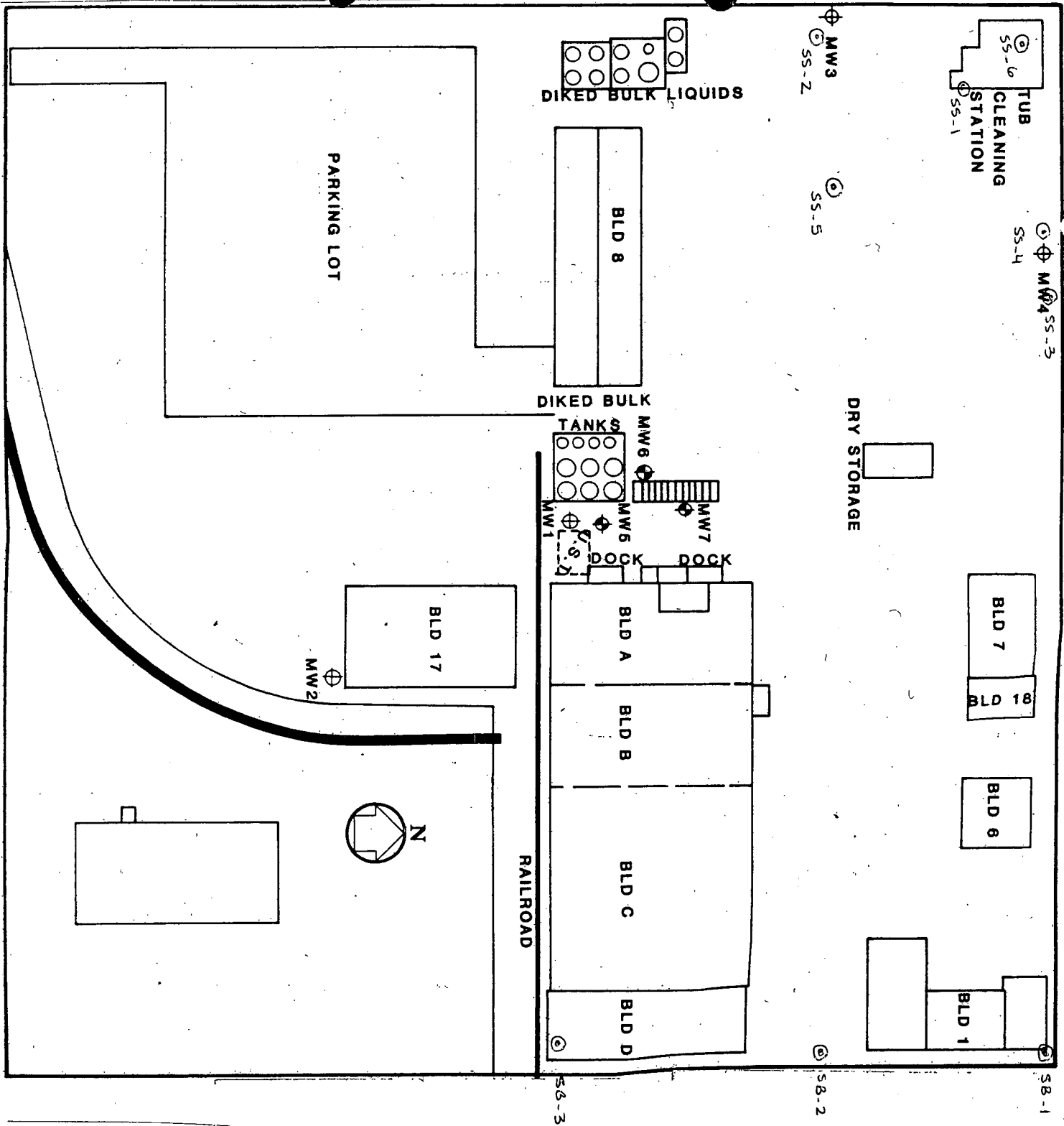
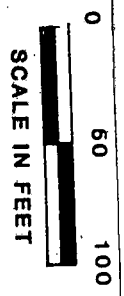


Figure 3-1 Sample & Background Location Map
Devoe Marine Coatings
2625 Durahart Street, Riverside, California 52502

- ⊙ SS Surface
- ⊙ SB Background
- ⊕ MW Monitoring Well



4.0 ANALYTICAL METHODS

4.1 Soil Sample Analysis

Analysis of surface and subsurface samples will be conducted for the following contaminants : metals (full metal scan). All samples will be analyzed using standard EPA and HML methods. EPA Method 6010 has been chosen for metals because it will allow detection of a variety of potential metal constituents potentially present at the Site. Sample analysis will be conducted by DTSC's Hazardous Materials Laboratory (HML).

All sample results will be compared to PRGs or state standards, whichever are most conservative. The laboratory's detection limit for each of the sixteen (16) metals in the metal scan should satisfy this standard. DTSC will request as low a detection limit as possible. This comparison will be made for "no further action" or "further work required" decision making. Since limited or no information currently exists to identify property-specific chemicals of concern, chemical-specific benchmarks for decision-making are not included in this plan. This limited sampling event will provide data to determine the absence or presence of on-site chemicals.

EPA Region IX Residential Preliminary Remediation Goals (November 2000, or more recent) will be used for comparison when evaluating detection limits.

The procedures contained in the HML User Manual, Appendix C, December 5, 1996 (or latest), will be used to request analyses from HML. The Sample Analysis Request (SAR) and Authorization Request Form (ARF) are included in Attachment B.

4.2 Groundwater Sample Analysis

Analysis of groundwater samples will be conducted for the following contaminants: VOCs and metals (full scan). All samples will be analyzed using standard EPA and HML methods. EPA Method 8260 has been chosen for VOCs because it will allow detection of a variety of potential volatile constituents potentially present at the Site. EPA Method 6010 has been chosen for metals because it will allow detection of a variety of potential metal constituents potentially present at the Site. Sample analysis will be conducted by DTSC's Hazardous Materials Laboratory (HML).

All sample results will be compared to federal or state Maximum Contaminant Levels (MCLs), whichever are most conservative. The laboratory's detection limit for each of the sixteen (16) metals in the metal scan and volatile organic compounds should satisfy this standard. DTSC will request as low a detection limit as possible. This comparison will be made for "no further action" or "further work required" decision making. This limited sampling event will provide data to determine the absence or presence of on-site chemicals.

4.3 Equipment Rinsate Analysis

No equipment rinsate analysis will be performed because disposable devices (scoops and bailers) will be utilized to collect all soil and groundwater samples.

Table 4-1

ANALYSIS PLANNING TABLE

SAMPLE NUMBER	SAMPLE MATRIX	LOCATION	CONTAINER TYPE/SIZE	NUMBER OF CONTAINERS	PRESERVATION	TYPE OF ANALYSIS	SAMPLING DEVICE
SS-1-0	SOIL	DRUM AREA	Glass 4 oz.	1	NONE	TITLE 22 METALS	DISPOSABLE PLASTIC SCOOP
SS-1-1	"	"	"	"	"	"	"
SS-2-0	"	"	"	"	"	"	"
SS-2-1	"	"	"	"	"	"	"
SS-3-0	"	NORTH FENCE LINE	"	"	"	"	"
SS-3-1	"	"	"	"	"	"	"
SS-4-0	"	"	"	"	"	"	"
SS-4-1	"	"	"	"	"	"	"
SS-5-0	"	PIGMENT AREA	"	"	"	"	"
SS-5-1	"	"	"	"	"	"	"
SS-6-0	"	DRUM RINSING AREA	"	"	"	"	"
SS-6-1	"	"	"	"	"	"	"
SD-6-1	"	DUPLICATE	"	"	"	"	"
SB-1-0	"	BACKGROUND AT SURFACE	"	"	"	"	"
SB-2-0	"	"	"	"	"	"	"
SB-3-0	"	"	"	"	"	"	"
MW-1-V	WATER	MONITORING WELL MW-1	GLASS 40 ml	2	"	VOCs 8260	DISPOSABLE PLASTIC BAILER
MW-1-M	"	"	PLASTIC 500 ml	1	NITRIC ACID	TITLE 22 METALS	"
MW-5-V	"	MONITORING WELL MW-5	GLASS 40 ml	2	NONE	VOCs 8260	"
MW-5-M	"	"	PLASTIC 500 ml	1	NITRIC ACID	TITLE 22 METALS	"

5.0 METHODS AND PROCEDURES

5.1 Soil Sampling

Actual soil sample locations will be recorded on a copy of Figure 3-1 as sampling is performed, and a clean copy will be produced after sampling is completed. Physical reference points will be labeled and, if possible, distances to the reference points will be given.

Surface samples will be collected using disposable plastic scoops. Sample containers will be filled to the top with measures taken to prevent soil from remaining in the lid threads prior to being sealed to prevent potential contaminant migration to or from the sample. After sample containers are filled, they will be immediately sealed, placed into an ice chest, chilled if appropriate and processed for shipment to the laboratory.

Subsurface samples will be collected by excavating to the desired sample depth using a shovel. Once the desired sample depth is reached, samples will be collected using a disposable plastic scoop. Accumulated soil will be set aside in a sample-dedicated, disposable pail or on a sample-dedicated, disposable tarp. The shovel will be cleaned prior to first use and after each location is sampled.

Sample containers will be filled to the top with measures taken to prevent soil from remaining in the lid threads prior to being sealed to prevent potential contaminant migration to or from the sample. After sample containers are filled, they will be immediately sealed, placed into an ice chest, chilled if appropriate, and processed for shipment to the laboratory. This procedure will be repeated until all sampling depths have been sampled. Excess soil from the sampled interval will be re-packed into the hole. Set-aside soil from the interval above the sampled interval will then be re-packed into the hole. Samplers will wear personal protective equipment (PPE) as specified in the Site Health and Safety Plan.

5.2 Groundwater Sampling

Groundwater samples will be collected from monitoring wells MW-1 and MW-5. These wells have historically had the highest detectable concentrations of contaminants. Well MW-1, or its predecessor, has had measurable free product.

Groundwater samples will be collected using disposable plastic bailers. New string will be attached securely to each bailer and replaced for each well. Care will be taken to gently lower the bailer into the well to prevent splashing or agitation of the water in the well. At MW-1, where free product has been detected, the bailer will be allowed to remain in the well to permit an evaluation of the presence or absence of free product. Samples will be decanted from the bailer and into sample containers. The containers for VOCs will be completely filled, allowing for no head space. The containers for metals analysis will be carefully filled to prevent the preservative from overflowing from the container. After

sample containers are filled, they will be immediately sealed, placed into an ice chest, chilled, and processed for shipment to the laboratory. All purge water will be properly managed and disposed. Samplers will wear the PPE as specified in the Site Health and Safety Plan. A properly calibrated field screening instrument, such as a photoionization detector or PID (see Attachment E on calibration PID information), will be used at the well head to evaluate VOC accumulation and for sampler breathing zone protection.

5.3 Equipment Rinsate Sample

No equipment rinsate analysis will be performed because disposable devices (scoops and bailers) will be utilized to collect all soil and groundwater samples. The scoops and bailers will be disposed of after each use - they will not be reused for sampling different locations.

5.4 Decontamination Procedures

The decontamination procedures that will be followed are in accordance with approved procedures. Decontamination of sampling equipment must be conducted consistently as to assure the quality of samples collected. All equipment that comes into contact with potentially contaminated soil or water will be decontaminated. Disposable equipment intended for one time use will not be decontaminated but will be packaged for appropriate disposal.

Decontamination will occur prior to and after each use of a piece of equipment. All sampling devices used, including trowels and augers, but not including disposable devices, will be cleaned using detergent and water, followed by a tap-water rinse, and allowed to air dry. If any visible organic material remains on the surface of the equipment or is suspected of remaining, a hexane rinse followed by isopropyl alcohol will be used to remove the organic material. Cleaned equipment will be stored in plastic bags or in a manner that prevents contamination.

6.0 DISPOSAL OF RESIDUAL MATERIALS

In the process of collecting environmental samples at the Devoe site during the PA, the DTSC site team may generate different types of potentially contaminated investigation-derived wastes (IDW) including the following:

- Used personal protective equipment (PPE)
- Disposable sampling equipment
- Decontamination fluids

Listed below are the procedures that will be followed for handling the IDW. The procedures have enough flexibility to allow the site investigation team to use its professional judgment on the proper method for the disposal of each type of IDW generated at each sampling location:

- Used PPE and disposable equipment will be double bagged and placed in a municipal refuse dumpster on site. These wastes are not considered

hazardous and can be sent to a municipal landfill. Any PPE and disposable equipment that is to be disposed of which can still be reused will be rendered inoperable before disposal in the dumpster.

- Decontamination fluids that will be generated in the PA will consist of residual contaminants, solvents, and water with non-phosphate detergent. The volume and concentration of the decontamination fluid will be sufficiently low to allow disposal at the site. The water (and water with detergent) will be poured onto the ground or into a storm drain. Pesticide-grade solvents will be allowed to evaporate from the decontamination bucket.

7.0 SAMPLE DOCUMENTATION AND SHIPMENT

At a minimum, the following information will be recorded during the sample collection:

- Sample numbers, locations, and descriptions
- Site sketch showing actual (as-built) sample locations and measured distances. This can be drawn onto a copy of Figure 3-1, the sample location map.
- Sampler's name(s)
- Date and time of sample collection
- Type of sample (i.e., matrix)
- Type of sampling equipment used
- Onsite measurement data as appropriate (PID reading, pH, etc.)
- Field observations and details important to analysis or integrity of samples (e.g., heavy rains, odors, colors, etc.)
- Preliminary sample descriptions (e.g., clay loam, very wet, color, odor)
- Type(s) of preservation used
- Lot numbers of the sample containers, sample tag numbers, and SAR form numbers
- Shipping arrangements (overnight air bill number)
- Recipient laboratory(ies)

Table 7-1

PA Sample Log

Site Name Devroe Marine Coatings

Date 4/30/02

Page 1 of 1

Site Address 2625 Durahart Street, Riverside, CA

Weather Conditions Partly Cloudy

SAMPLE NUMBER	SAMPLE MATRIX	LOCATION	TIME	CON-TAINER TYPE/ SIZE	SAMPL-ING DEVICE	PRE-SERVA-TION	PERSON TAKING SAMPLE	PERSON RECOR-DING DATA	COMMENTS/ OBSER-VATIONS
SB-1-0	Soil	8'5" to N. fence, 7'9" to E. fence	1:15 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Background at surface
SB-2-0	Soil	8'9" to N. edge of asphalt driveway, 7'4" to E. fence	1:20 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Background at surface
SB-3-0	Soil	25'9" to E. fence 26'4" to NW of SW building wall after railroad trk	1:28 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Background at surface
SS-1-0	Soil	86'0" from N. short blue wall, 62' 9" to W. short wall	2:50 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Drum area location
SS-1-1	Soil	86'0" from N. short blue wall, 62' 9" to W. short wall	3:00 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Drum area location
SS-2-0	Soil	186'0" to N. wall, 25'0" to W. short wall	3:08 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Drum area location
SS-2-1	Soil	186'0" to N. wall, 25'0" to W. short wall	3:20 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Drum area location
SS-3-0	Soil	7'4" to N. blue short wall, 28'10" to E. of MW-4	1:54 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	North fence line
SS-3-1	Soil	7'4" to N. blue short wall, 28'10" to E. of MW	2:04 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	North fence line
SS-4-0	Soil	4'3" to N. short blue wall, 13'6" to NW of MW-4	2:10 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	North fence line
SS-4-1	Soil	4'3" to N. short blue wall, 13'6" to NW of MW	2:18 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	North fence line

SAMPLE NUMBER	SAMPLE MATRIX	LOCATION	TIME	CON-TAINER TYPE/ SIZE	SAMPL-ING DEVICE	PRE-SERVA-TION	PERSON TAKING SAMPLE	PERSON RECOR-DING DATA	COMMENTS/ OBSER-VATIONS
SS-5-0	Soil	105'0" to short blue wall, 123'0" to SE MW-7	3:30 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Pigment area
SS-5-1	Soil	105'0" to short blue wall, 123'0" to SE MW-7	3:40 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Pigment area
SS-6-0	Soil	39'0" to short blue wall, 27'0" to W. short wall	2:30 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Drum rinsing area
SS-6-1	Soil	39'0" to short blue wall, 27'0" to W. short wall	2:35 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Drum rinsing area
SD-6-1	Soil	39'0" to short blue wall, 27'0" to W. short wall	2:37 pm	Glass 4 oz	disposable plastic scooper	None	Greg S.	Rania Z.	Duplicate
MW-1-V	Water	Monitoring Well No. 1	12:23 pm	Glass 40 ml	disposable plastic bailer	None	Greg S.	Rania Z.	Source Area, No floating product, no sheen
MW-1-M	Water	Monitoring Well No. 1	12:27 pm	Plastic 500 ml	disposable plastic bailer	Nitric Acid	Greg S.	Rania Z.	Source Area, No floating product, no sheen
MW-5-V	Water	Monitoring Well No. 5	12:44 pm	Glass 40 ml	disposable plastic bailer	None	Greg S.	Rania Z.	No sheen
MW-5-M	Water	Monitoring Well No. 5	12:50 pm	Plastic 500 ml	disposable plastic bailer	Nitric Acid	Greg S.	Rania Z.	No sheen

SAR form number(s)

In addition to the information in the PA sample log, the following specifics should also be recorded in a field logbook for each day of sampling:

- Team members and their responsibilities
- Time of site arrival/entry on site and time of site departure
- Other personnel on site
- A summary of any meetings or discussions with any potentially responsible parties (PRPs), representatives of PRPs, or federal, state, or other regulatory agencies
- Deviations from sampling plans and site safety plans

- Changes in personnel and responsibilities as well as reasons for the changes
- Levels of safety protection
- Calibration readings for any equipment used and equipment model and serial number.

7.1 Bottles and Preservatives

There will be a total of thirteen (13) 4-ounce (100ml) glass jars, four (4) 40 milliliter (ml) glass vials, and two (2) 500 ml plastic bottles. These containers will be pre-cleaned and will not be rinsed prior to sample collection. Each container will be sealed and placed in a ziplock™ plastic bag, and placed into an ice chest pre-packed with ice. The two plastic bottles for metals analysis in groundwater will contain nitric acid preservative.

Soil samples to be analyzed for metals will be placed into 4-ounce wide-mouth jars. For each sample, one 4-ounce glass jar will be collected. Groundwater samples to be analyzed for VOCs will be placed into 40 ml glass vials. For each sample, two 40 ml vials will be collected. Groundwater samples to be analyzed for metals will be placed into 500 ml plastic bottles. All containers will be placed into the cooler for transport to the laboratory.

7.2 Sample Analysis Request (SAR) Forms, Evidence Tape

SAR forms are used to document sample collection, chain-of-custody, and shipment to HML for analysis. All sample shipments will be accompanied by an SAR form.

The SAR form will identify the contents of each shipment and maintain the custodial integrity of the samples. Generally, a sample is considered to be in someone's custody if it is either in someone's physical possession, in someone's view, locked up, or kept in a secured area that is restricted to authorized personnel. Until the samples are shipped, the custody of the samples will be the responsibility of DTSC. The site leader or designee will sign the "relinquished by" box on the SAR form, and note the date, time, and air bill number.

DTSC evidence tape will be placed across the lid of each sample jar, or about the end of the plastic bag containing the samples and used to protect them from melting ice. For VOC samples, the seal will be wrapped around the cap. The shipping containers in which samples are stored will be sealed with evidence tape any time they are not in someone's possession, or view, before shipping.

7.3 Photographs

Photographs will be taken at every sample location and at other areas of interest on site. They will serve to verify information entered in the field logbook. When a photograph is taken, the following information will be written in the logbook or will be recorded in a separate field photography log:

- Time, date, location, and, if appropriate, weather conditions
- Description of the subject photographed, including sample identification number.
- Name of person taking the photograph

7.4 Labeling, Packaging and Shipment

All samples collected will be labeled in a clear and precise way for proper identification in the field and for tracking in the laboratory. At a minimum, the sample labels will contain the following information: sample number, site name, date of collection, and initials of the sampler.

All sample containers will be placed in a strong-outside shipping container. The following outlines the packaging procedures that will be followed for low concentration samples:

1. When ice is used, secure the drain plug of the cooler with fiberglass tape to prevent melting ice from leaking out of the cooler.
2. Line the bottom of the cooler with bubble wrap or other material to prevent breakage during shipment.
3. Check screw caps for tightness.
4. Secure each bottle/container (or outer plastic bag) with a custody seal.
5. Affix sample labels onto the containers.
6. Wrap all glass sample containers in bubble wrap to prevent breakage.
7. Seal all sample containers in heavy duty plastic bags.

All samples will be placed in coolers with SAR forms. All forms will be enclosed in a large plastic bag and affixed to the underside of the cooler lid. Empty space in the cooler will be filled with bubble wrap or Styrofoam peanuts to prevent movement and breakage during shipment. Ice used to cool samples will be double sealed in two zip lock plastic bags and placed on top and around the samples to chill them to the correct temperature. Each ice chest will be securely taped shut with nylon strapping tape.

8.0 QUALITY CONTROL

8.1 Equipment Rinsate Sample

No equipment rinsate analysis will be performed because disposable devices (scoops and bailers) will be utilized to collect all soil and groundwater samples. The scoops and bailers will be disposed of after each use - they will not be reused for sampling different locations.

8.2 Split Samples and Field Duplicate Samples

Split samples will be taken only when requested by the responsible party or property owner. Before sampling, the responsible party (RP) or property owner will be asked if they would like split samples; if so, they should bring their own sample containers. If they indicate they are unable to provide their own containers, the DTSC sampler should provide them. Split samples will be either co-located or physically divided in the field. Samples subject to volatilization (VOCs, SVOCs) will be co-located with the samples taken for DTSC analysis. They may be taken from the same boring as the DTSC samples. Samples will be divided in half when volatilization is not a problem (metals, non-volatile pesticides), after being homogenized thoroughly in a pail or other container.

Field duplicate samples will be collected for DTSC's purposes, to help assess contaminant and matrix variability. One out of every 10 samples will be a duplicate sample sent blind to the laboratory. Sample number SD-6-1 will be a duplicate.

The duplicate will be numbered similarly to the other samples on the SAR form, i.e., if samples number S-5, S-6 and S-7 are taken, with S-6 being a duplicate, they will be indicated on the SAR form as "S-5, S-6 and S-7", but the duplicate sample will be indicated on the Analysis Planning Table (4-1) and PA Sample Log (Table 7-1) by the suffix "D" after the sample number, e.g., samples "S-5, S-6D and S-7".

Duplicate samples will be taken as follows:

<u>Sample No.</u>	<u>Location</u>	<u>Rationale</u>
SD-6-1	Former Drum Rinsing Area	High potential for metal contamination

8.3 Laboratory Quality Control Samples

Laboratory quality control (QC) samples are taken in the field and sent to the laboratory for QC purposes. For soil samples, QC aliquots (portions) can be taken from a normal sample sent for analysis, provided that the sample volume is at least 90 grams. A 30-gram aliquot is analyzed as a regular sample, 30 grams are analyzed as a matrix spike, and 30 grams are analyzed as a matrix spike duplicate. For soil samples, write on the sample label "SITE DATA/ LAB QC", in addition to the sample number.

For water samples, the laboratory will require a double volume, e.g., two 40-ml Volatile Organic Analysis (VOA) vials instead of one, or two one-quart samples instead of one, as appropriate. The vials or bottles should each be labeled with the same sample number, with "QC" written on the label of one of the containers. One out of 20 samples should be designated for laboratory QC. If fewer than 20 samples are taken, one sample should be a laboratory QC (combination normal and laboratory QC) sample. These samples should be indicated in your PA Sample Log and Analysis Planning Table with "QC" after the sample number.

Samples number MW-1-V and MW-5-V are designated as laboratory QC samples.

8.4 Temperature Blanks

For volatile and semi-volatile samples, one temperature blank consisting of a 40-milliliter glass vial of distilled water will be included in each cooler shipped to the analytical laboratory. The purpose of the temperature blank is to allow the analytical laboratory to obtain a representative measurement of the temperature of samples enclosed in a cooler without disturbing the actual samples. The field team will package and label the temperature blank like a normal water sample, however the analytical laboratory will only measure the temperature of the blank. The temperature blank will not be analyzed for hazardous substances. A temperature blank will not be necessary for metals samples. Mark such samples as "TEMP" in the appropriate forms.

9.0 HEALTH AND SAFETY

Field staff will be current on health and safety training (HAZWOPER) and medical monitoring to perform field activities. A Site Health and Safety Plan (Attachment A) must be prepared and reviewed by an industrial hygienist (IH). A Hazard Appraisal and Recognition Plan (HARP) must be prepared at least 48 hours before going onsite. A post-HARP must be filled out and submitted to the IH after completion of field activities.

ATTACHMENT A

SITE HEALTH AND SAFETY PLAN

Health and Safety Plan

**Devoe Marine Coatings
2625 Durahart Street
Riverside, California 92507
EPA ID# CAD 097574073**

**Preliminary Assessment
with Sampling**

1.0 INTRODUCTION AND BACKGROUND

This health and safety plan (HASP) has been created for the Department of Toxic Substances Control (DTSC) to address field activities associated with the Preliminary Assessment (PA) with sampling field activities to be conducted at Devoe Marine Coatings.

2.0 APPLICABILITY

This HASP will apply to all field activities performed by DTSC personnel at the Site. The purpose of this HASP is to define requirements and designate protective protocols to be followed by DTSC employees. The HASP is designed to provide guidance to protect the health and safety of individuals and assist in compliance with all relevant health and safety regulations during the completion of Site activities. It is intended to supplement, **not** replace, California Health and Safety Regulations as set forth in the California Code of Regulations, Title 8 (8 CCR).

The provisions of the plan are mandatory for all DTSC personnel involved in field activities performed at the Site.

New work tasks and/or changing Site conditions will require a modification to this document. All modifications proposed to this document shall be reviewed by a representative of the Industrial Hygiene Section (IHS). Permanent revisions shall be attached as addenda to the HASP.

This Site specific HASP, in conjunction with DTSC's Written Accident Prevention Program, constitutes the Site specific workplace injury and illness prevention program required by 8 CCR 3203.

3.0 SITE HISTORY AND DESCRIPTION

The site occupies approximately 7.5 acres in a light industrial and commercial area. The site is bordered on the north by U.S. Interstate 60, on the west by Hulen Place, on the south by Massachusetts Avenue, and on the east by Durahart Street. Land use immediately around the site is commercial and light industrial. Specifically, PPG Glass Distributors is to the south of the Site. A truck rental company is to the north of the Site. An abandoned cement plant is west of the Site. A welding facility, a printing facility, and several other commercial buildings are also in the immediate vicinity of the Site. Vegetation is sparse, and the Site does not appear to provide habitat for fauna. All former buildings were demolished and removed in early 2000. The only remaining surface features are a soil vapor extraction system and an associated thermal oxidation unit. The Site is located on alluvial materials consisting mainly of sand-sized particles with minor silts and gravels. The topography of the Site is flat. The Site is located within 2 miles of the Riverside Canal which is the nearest surface water body. The site layout, including former building locations, is shown in Figure 2-2.

The Site formerly consisted of a two-story manufacturing building and several single-story buildings. The site historic layout is shown in Figure 2-2 (Facility Map). The Site was asphalt-paved at one time; however, after the buildings were removed the Site is now dirt covered. Historically, there was a dirt area located near the employee parking lot. The Site is surrounded on the north and the east by a concrete retaining wall. The southern and western perimeters of Devoe are enclosed by a gated and locked chain-link fence topped with barbed wire. These access gates are the only entrances to the facility.

Devoe had two above-ground storage tank farms, which were in use since 1981. One storage tank farm was used to hold resins, and the other was used for solvent storage. Both of the storage tank farms were placed on concrete pads and surrounded by 3-foot concrete berms. The berms served as a secondary spill containment feature. The solvent above ground storage tank farm had a total of 10 tanks of various capacities. Three 8,000-gallon tanks were used to store methyl isobutyl ketone (MIBK), mineral spirits, and xylene. Two 5,000 gallon tanks were used to store naptha, and wash solvent (50 percent methyl n-amyl ketone and 50 percent xylene). A single 3,000-gallon tank was used to store mineral spirits. A single 10,000-gallon tank was used to store methyl n-amyl ketone. Two tanks having capacities of 10,000 gallons were used to store storm water. The remaining single 6,000-gallon tank contained an unknown solvent. The above-ground resin storage tank farm also consisted of 10 tanks. Four 10,000-gallon tanks were used to store cellusolve, epoxy resin, alkyd, resin, and n-butanol. Two 5,000-gallon and two 16,000-gallon tanks were also used for alkyd resin and epoxy resin storage. The two remaining 10,000-gallon tanks contained unknown resins. The Site also operated a solvent recycling (distillation) area and a drum/tub cleaning area.

The Site is located at 2625 Durahart Street in Riverside , California. The geographic coordinates of the site are 33°59'16.6"N latitude and 117°21'03.15"W longitude (Township 2S, Range 5W, Section 24, San Bernardino Baseline and Meridian, Riverside, 7.5-minute quadrangle).

4.0 HEALTH AND SAFETY RESPONSIBILITY

The DTSC Southern California Cleanup Operations - Cypress Branch (SCCOCB) Chief and Unit Chief are ultimately responsible for the health and safety of DTSC employees on this project. They have designated Mr. Greg Sweel to serve as the Site Safety Officer (SSO). All DTSC personnel working on this project shall be current in training and medical monitoring requirements in accordance with the requirements of 8 CCR.

4.1 DTSC SMB Unit Chief

The SCCOCB Unit Chief, through the SSO has the primary responsibility for:

1. Verifying that appropriate Personal Protective Equipment (PPE) and monitoring instrumentation are available and properly employed by DTSC personnel at the Site;

2. Establishing that DTSC SCCOCB personnel are aware of the provisions of this plan, are instructed in the work practices necessary to ensure safety, and are familiar with planned procedures for handling emergency situations;
3. Verifying that all DTSC SCCOCB personnel at the Site have successfully completed all field training and medical requirements;
4. Verifying that HASP Plan acceptance forms are completed by all DTSC SCCOCB personnel at the Site;
5. Reviewing and approving this project HASP.

4.2 Site Safety Officer (SSO)

The SSO duties for the Site shall be performed by Mr. Greg Sweel or a qualified alternate. The SSO is responsible for:

1. Implementing the provisions of this HASP, and reporting any deviations from the anticipated conditions described in the HASP to the SCCOCB Unit Chief and the Industrial Hygienist (IH);
2. Checking with the SCCOCB Unit Chief to verify that all SCCOCB staff at the Site are current in their training and medical monitoring requirements, and have a valid respirator fit test.

4.3 Industrial Hygienist (IH)

The IH is responsible for:

1. Determining the need for periodic Site visits to observe the effectiveness of this plan and evaluate compliance with the health and safety protocols included within the HASP;
2. Provide technical support as requested by the SSO and the SCCOCB Chief/Unit Chief.

5.0 MEDICAL MONITORING PROGRAM

In compliance with 8 CCR 5192(f), all SCCOCB personnel involved with this project shall be enrolled in DTSC's medical monitoring program. Medical surveillance shall be provided to employees prior to employment, biennially thereafter (at a minimum), and as a follow-up to injuries and over-exposures

The DTSC medical monitoring program is designed to prevent and detect occupational injuries and illnesses. The program includes a baseline examination, periodic medical evaluations, episodic examinations, and exit examinations. All physical examinations

include physical measurements, blood and urine test, stress EKG, vision and hearing, chest x-rays (if indicated), medical history, occupational history, and a physical examination.

All DTSC staff will have current medical examinations (within the last 24 months).

Riverside Community Hospital at 4445 Magnolia Avenue in Riverside, (909) 788-3000, has been identified as the local Emergency Medical Facility capable of providing emergency medical services in the event of chemical or physical trauma. This hospital is located approximately 2.6 miles from Devoe. Travel time to the hospital is approximately 6 minutes from Devoe. A map to the hospital is provided in the Hazard Appraisal and Recognition Plan (HARP) Pre-Site Visit Form (Attachment D).

6.0 HEALTH AND SAFETY TRAINING

All SCCOCB field personnel involved with this project shall have successfully completed a 40-hour health and safety training course as specified in 8 CCR 5192(e). This training must be renewed annually with an eight-hour refresher course.

Prior to the commencement of field activities, and after reviewing the HASP, all SCCOCB personnel shall meet with the SSO. During this Site-specific health and safety orientation, any questions regarding the HASP will be answered. The purpose of this orientation is to ensure compliance with the Health and Safety Plan as well as fulfilling applicable Right-to-Know regulations. The issues to be addressed at this orientation will include:

- chemical, physical, and biological hazards on Site;
- potential for exposure to substances on Site;
- monitoring procedures and protocols;
- levels of personal protection to be utilized and personal protective equipment required to mitigate potential exposure;
- decontamination procedures;
- emergency and evacuation procedures; and
- Site documentation procedures.

7.0 CHEMICAL SUBSTANCES OF CONCERN

Chemical exposure may occur through dermal contact with chemicals; ingestion of contaminants due to improper decontamination or poor personal hygiene; or inhalation of contaminants during field activities. The nature of the task to be performed, the chemical, physical, toxicological, and warning properties of the chemical(s), and the

instruments' ability to adequately respond to the chemicals of concern (COC's) should all be accounted for when determining the appropriate level of protection (LOP) for a task based upon chemical contaminants.

Table 7-1 includes chemical exposure data for compounds known or suspected to be present on Site.

TABLE 7 - 1 CHEMICAL EXPOSURE DATA

CHEMICAL NAME	EXPOSURE LIMIT(S)	CHEMICAL AND PHYSICAL PROPERTIES		EXPOSURE ROUTE	SYMPTOMS
Beryllium	PEL=0.002 mg/m ³ TLV=0.002 mg/m ³ REL=0.0005 mg/m ³ IDLH=4 mg/m ³	MW:9.0 BP:354F Sol:0.05% FIP:N/A IP:N/A	VP:1 mm FRZ:-38F UEL:N/A LEL:1.1%	Inh. Con. Ing.	Anorexia, low weight, weak, chest pain, cough, clubbing of fingers, cyanosis, pulmonary insufficiency, eye irritation, dermatitis, cancer
Lead	PEL=0.050mg/m ³ TLV=0.15mg/m ³ REL=0.100mg/m ³ IDLH=700mg/m ³ (Reproductive Toxin)	MW:207.2 BP:3164F Sol:Insol FIP:NA IP:NA	Inh:Inh:Inh: VP:0 mm MLT:621F UEL:NA LEL:NA Sp. Gr:11.34	Ing: Con: Inh.	Weakness, lassitude, insomnia, facial pallor. Pale eyes, anorexia, low weight, constipation, abdominal pain.

KEYS TO ABBREVIATIONS

COLUMN	ABBREVIATION	EXPANSION
EXPOSURE LIMIT(S)	PEL TLV/TWA REL IDLH STEL	Permissible Exposure Limit Threshold Limit Value/Time Weighted Average Recommended Exposure Limit Immediately Dangerous to Life and Health Short Term Exposure Limit
CHEMICAL AND PHYSICAL PROPERTIES	BP Decomp FLP FRZ Insol IP LEL MLT MW NA RR Sol Sp. Gr. UEL VP	Boiling Point at one Atmosphere, °F Decomposition Flash Point Freezing Point for Liquids and Gasses, °F Insoluble Ignition Point Lower Explosive Limit Melting Point Molecular Weight Not Applicable Relative Response Solubility Specific Gravity Upper Explosive Limit Vapor Pressure
EXPOSURE ROUTE	Abs Con Ing Inh	Absorption Contact Ingestion Inhalation

8.0 PHYSICAL HAZARDS OF CONCERN

The nature and extent of the field activities creates a number of potential physical hazards on Site. These hazards may be mitigated through a combination of engineering, administrative and work practice controls. Information pertaining to physical hazards shall be discussed during the initial Site briefing which will be presented to all field personnel, and reinforced at the daily project safety meetings.

8.1 PHYSICAL HAZARDS

The field activities to be conducted will potentially require DTSC field personnel to be in close proximity to various physical hazards. The specific hazards encountered will be dependent upon the task and the operation being conducted. Below is a partial list of physical hazards that may be encountered during activities:

- Inclement Weather
- Hand Tools
- Heat/Cold Stress

Section 10.0 of the HASP provides a task-by-task risk analysis for each sub-task to be performed during field activities.

8.1.1 Trip, Slip, Fall Hazards

DTSC personnel shall be reminded to maintain a workplace free of scattered tools and supplies. "Housekeeping" procedures will be discussed at the daily safety briefings. The importance of maintaining safe footing will be reinforced in daily safety briefings. This is not a significant issue because work will be performed on a relatively flat surface and there will not be any large equipment to trip over.

8.1.2 Confined Space

Since all work will be performed outside in the open, this is not an issue.

8.1.3 Hand and Power Tools

No power tools shall be used. The only hand tools used shall be disposable plastic scoops or, if necessary, a stainless steel hand trowel.

8.1.4 Illumination

Since it is anticipated that all field activities shall be conducted during daylight hours, lighting will not be necessary.

8.1.5 Inclement Weather

Potential hazards associated with inclement weather may include heat, rain, and electrical storms. Should any of these conditions present a threat of injury to DTSC personnel, work activities potentially exposed to these hazards shall be terminated.

Heat may increase the likelihood of DTSC personnel experiencing heat related disorders. Extreme heat may also lead to increased rates of volatilization, and increase the pressure on sealed containers, potentially increasing the risk of toxic exposure or flammable/explosive atmospheres.

Rain may increase slipping and tripping hazards and the braking distances of vehicles. Rain may also fill in depressions and obscure trip and fall hazards. Rain may also increase the potential of electrical shock when working in proximity to electrical equipment.

Lightning represents a real hazard of electrical shock when working in flat open spaces, elevated work places, or near tall structures such as stacks.

8.1.6 Heat Related Disorders

Heat stroke is an acute and dangerous reaction to heat stress caused by a failure of heat regulating mechanisms of the body; the individual's temperature control system that causes sweating, stops working correctly. Body temperature rises so high that brain damage and death will result if the person is not cooled quickly.

Symptoms - Red, hot, dry skin, although the person may have been sweating earlier; nausea; dizziness; confusion; extremely high body temperature; rapid respiratory and pulse rate; unconsciousness or coma.

Treatment - Cool the victim quickly. If the body temperature is not brought down quickly, permanent brain damage or death will result. Soak the victim in cool, but not cold, water; sponge the body with cool water or pour water on the body to reduce the temperature to a safe level (102°F). Observe the victim and obtain medical help. Do not give coffee, tea, or alcoholic beverages.

Heat exhaustion is a state of very definite weakness or exhaustion caused by the loss of fluids from the body. The condition is much less dangerous than heat stroke, but it nonetheless must be treated.

Symptoms - Pale, clammy, moist skin; profuse perspiration and extreme weakness. Body temperature is normal, pulse is weak and rapid, breathing is shallow. The person may have a headache, may vomit, and may be dizzy.

Treatment - Remove the person to a cool, air conditioned place, loosen clothing, place in a head-low position and ensure the individual remains immobile. Consult physician, especially in severe cases. The normal thirst mechanism is not sensitive enough to ensure body fluid replacement. Have patient drink 1 to 2 cups of water immediately, and every 20 minutes thereafter until symptoms subside. Total water consumption should be about 1 to 2 gallons per day.

Heat cramps are caused by perspiration that is not balanced by adequate fluid intake. Heat cramps are often the first sign of a condition that can lead to heat stroke.

Symptoms - Acute painful spasms of voluntary muscles, e.g., abdomen and extremities.

Treatment - Remove victim to a cool area and loosen clothing. Have patient drink 1 to 2 cups of water immediately, and every 20 minutes thereafter until symptoms subside. Total water consumption should be 1 to 2 gallons per day.

Heat Rash is caused by continuous exposure to heat and humid air and aggravated chafing clothes. The condition decreases ability to tolerate heat.

Symptoms - Mild red rash, especially in areas of the body that come into contact with protective gear.

Treatment - Decrease amount of time in protective gear and provide powder to help absorb moisture and decrease chafing.

Heat Stress Monitoring and Work Cycle Management

For strenuous field activities that are part of on-going Site work activities in hot weather, the following procedures shall be used when appropriate to monitor the body's physiological response to heat, and to manage the work cycle, even if

workers are not wearing impervious clothing. Awareness and limited monitoring procedures are to be instituted when the temperature exceeds 70°F.

Measure Heart Rate - Heart rate (HR) should be measured by the radial or carotid pulse for 30 seconds as early as possible in the resting period. The HR at the beginning of the rest period should not exceed 110 beats/minute. If the HR is higher, the next work period should be shortened by 33%, while the length of the rest period stays the same. If the pulse rate still exceeds 110 beat/minute at the beginning of the next rest period, the following work cycle should be further shortened by 33%. The procedure is continued until the rate is maintained below 110 beats/minute.

The length of work period is governed by frequency of physiological monitoring. The length of the rest period is governed by physiological parameters (heart rate and oral temperature). For example, if an individual's heart rate exceeds 110 beats/minute at the beginning of the rest period, that individual will remain on rest-time until his/her heart rate drops well below 110 beats/minute and their next work period (duration of time before suggested physiological monitoring) is decreased by 33%.

8.1.7 Sub-Surface Utilities

USA Digalert should be called between 48 and 72 hours prior to commencement of field activities. However, since all soil sampling will be at or near the surface, it will not be necessary to contact USA Digalert prior to work.

9.0 BIOLOGICAL HAZARDS OF CONCERN

9.1 ANIMAL BITES AND STINGS

Animal bites or stings are usually nuisances (localized swelling, itching, and minor pain) that can be handled by first-aid treatments. The bites of certain snakes, lizards, spiders, and scorpions contain sufficient poison to warrant medical attention. There are diseases that can be transmitted by insect and animal bites. Examples are Rocky Mountain spotted fever, Lyme disease (tick), rabies (mainly dogs, skunks, and foxes), malaria, and equine encephalitis (mosquitos). The greatest hazard and most common cause of fatalities from animal bites—particularly bees, wasps, and spiders—is a sensitivity reaction. Anaphylactic shock due to stings can lead to severe reactions in the circulatory, respiratory, and central nervous systems, which can also result in death.

9.2 CONTACT WITH PLANTS

Certain plants, including poison oak, produce adverse effects from direct contact. The usual effect is dermatitis—inflammation of the skin. The protective clothing and decontamination

procedures used for chemicals also reduce the exposure risk from plant toxins. Cleaning the skin thoroughly with soap and water after contact will reduce risk.

10.0 TASK BY TASK RISK ANALYSIS

This HASP addresses the major sub-tasks which DTSC personnel will perform during field activities at the Site. These sub-tasks are outlined below with a brief description of each. (Staff should discuss the field work with the IH for this section.)

Photographer/Notetaker: Rania Zabaneh

The anticipated hazards are lead and beryllium exposure at low levels, heat stress, slips, trips and falls, and biological hazards.

Sampler: Greg Sweel

Same hazards as the photographer and notetaker. Since either a disposable plastic scoop or a stainless steel trowel will be the only equipment used, no hazards are anticipated due to equipment. Also, since all soil sampling will be at or near the surface, it will not be necessary to contact USA Digalert prior to work.

10.1 Soil Sampling Via Hand Auger and Drive Sampler

DTSC personnel may utilize hand-held augers and drive samplers to install shallow sub-surface soil borings and obtain soil samples from various depths below ground surface (bgs). These activities may expose DTSC personnel to assorted physical and chemical hazards and are identified in table format below.

TABLE 10-1**Task: Soil Sampling Via Hand Auger and Drive Sampler**

HAZARD	RISK	CONTROL(S)
Chemical Exposure	Moderate	Perform real-time air monitoring for airborne COC's. Project personnel should remain upwind of sampling location whenever possible. Moisten soil with hudson sprayer filled with de-ionized water. Utilize appropriate PPE.
Heat Stress	Moderate	Limit time spent in PPE. Ensure that adequate fluids are consumed. Minimize unnecessary physical activity
Trip, slip, fall hazards	Moderate	Maintain equipment and supplies in an orderly manner. Remove readily moveable obstacles and slippery materials from work area.

LEVELS OF PROTECTION/JUSTIFICATION: DTSC personnel performing this task shall, at a minimum, utilize Level **D** PPE. This LOP should afford adequate worker protection due to lack of chemicals that can be readily inhaled and working with only soil. There will be no manual lifting involved, since only a disposable plastic scoop or a stainless steel trowel will be used.

10.2 PERSONAL DECONTAMINATION SEQUENCE

Figure 10-1 presents general decontamination sequences planned for the LOPs anticipated for the Site.

10.4 PROTECTION REQUIRED FOR DECONTAMINATION PERSONNEL

The LOP for personnel assisting with decontamination are dependent upon the amount of potential contact with contaminants and the agents utilized in the decontamination process. Personnel assisting in decontamination activities shall utilize the same LOP or one LOP lower than the individual whom they are assisting.

10.5 DISPOSITION OF DECONTAMINATION WASTES

All disposable clothing will be placed in sealed plastic bags and disposed of in the sanitary trash. No liquid, except for drinking water, will be used for this sampling activity.

It is not anticipated that formalized exclusion, contamination reduction, and support zones will be established. As a result, the steps outlined below will be part of a step-off decontamination, and not performed in different work zones.

MODIFIED LEVEL D DECONTAMINATION

- Step 1 Segregated equipment drop
- Step 2 Outer boot cover and outer glove wash
- Step 3 Outer boot cover and outer glove rinse
- Step 4 Tape removal
- Step 5 Outer boot cover removal
- Step 6 Outer glove removal
- Step 7 Disposable suit removal
- Step 8 Inner glove removal/disposal
- Step 9 Field wash

- A dry, step-off decontamination procedure may be employed based upon the approval of the DTSC SSO.

11.0 LEVELS OF PROTECTION (LOP)

Based on the previous sampling results of 971 mg./kg. and 92.7 mg./kg., respectively, of lead and beryllium, respiratory protection is not required. Based on the lead in soil results, one would need approximately 50 mg./m.³ of dust in the air to exceed the OSHA Permissible Exposure Level (PEL). For beryllium, one would need approximately 20 mg./m.³ of dust in the air to exceed the OSHA PEL. Therefore, dust for comfort reasons must be maintained under approximately 2 mg./m.³.

11.1 LOP DESCRIPTION

The Site will exclusively utilize LOP D and modified LOP D. Level D is used on sites without respiratory or skin hazards. It provides minimal protection against chemical hazards.

Modifications of this level is permitted, and routinely employed during Site work activities, to maximize efficiency for each task. For example, modified Level D is used when skin and contact hazards exist, but no respiratory hazard is anticipated. Modified Level D may include booties, chemical-resistant gloves, and coveralls.

The Industrial Hygiene and Field Safety Section (IHFSS) has established action levels for minimum LOPs. The DTSC SSO, in conjunction with the IHFSS, will upgrade/downgrade LOPs based on real-time air monitoring results.

The LOP selected for Site activities is based upon; 1) the type of chemical substance, toxicity, and measured concentration in the ambient atmosphere, and 2) potential for exposure to substances in air, splashed of liquids, or other direct contact with material due to work being done.

In the case of this Site, LOP D is the selected LOP. LOP components include:

- Tyvek coveralls
- Work gloves
- Boots - ANSI approved with steel toe
- Safety glasses
- Hard hat

Modified LOP D will include the above and:

- Gloves - chemically resistant.

12.0 AIR MONITORING PLAN

The site will utilize the Hnu PID 10.2 eV. The action level will be 5 Relative Response Units (RRU). If the action level is exceeded, work will cease. Calibration and maintenance will be done per the manufacturer's instructions.

A mini-RAM may be utilized to monitor the dust. Dust levels exceeding 1.0 mg/m³ will require engineering controls (wetted soil).

13.0 SITE CONTROL TECHNIQUES

The site is fenced and secured. It is not anticipated that formalized exclusion, contamination reduction, and support zones shall be established. In the event of a spill, fire, or other emergency, DTSC personnel shall immediately call 911.

The "buddy system" is designed to provide back-up for all personnel engaged in activities at hazardous waste sites. All personnel performing work at this site will have a buddy. The buddy team shall remain in visual contact at all times and will remain within 10 yards of each other. The buddy will check each of his partners' PPE, check for signs of heat stress, assist in field duties, and provide immediate assistance in an emergency.

The field team will have a cell phone immediately available for notification of emergency situations. For on-site communication, normal voice communication will be adequate.

14.0 EMERGENCY RESPONSE PLAN

The emergency response plan is an integral part of the Health and Safety Plan and will be reinforced to Site personnel during the morning safety briefings. Ideally, appropriate planning and control will preclude the need for a response action. However, it is imperative that Site personnel are prepared to respond to an emergency to prevent further harm or injury.

14.1 MEDICAL EMERGENCIES

In the event of a medical emergency, the following procedures shall be implemented:

- Call 911.

- Identify location, request medical assistance, provide name and telephone number.

The Contamination Reduction Zone will be equipped with an approved portable eye wash unit in accordance with ANSI standard Z358.1, an ABC type dry chemical fire extinguisher, and a first aid kit as needed.

The first aid kit location will be communicated to all Site personnel, and provided with adequate water and other supplies necessary to clean and decontaminate burns, wounds, or lesions. At least one person certified in First Aid techniques, which includes training in CPR, will be on the Site at all times.

14.2 EARTHQUAKES

The actual earth movement of an earthquake is seldom the direct cause of injury or death. Most casualties are caused by falling debris from collapsing buildings and or other structures and by fires caused by broken gas mains, etc.

During an Earthquake

- Remain calm and do not panic.
- If caught indoors, remain indoors. Take cover under a desk or table or against inside walls or doorways. Stay away from windows and outside doors.
- Do not use anything that may be a source of ignition, i.e. smoking, etc.
- If in a moving vehicle, stop as quickly as safety permits, but stay in the vehicle. When you drive after the earthquake, watch carefully for hazards created by the earthquake, i.e. undermined roads, weak bridges or overpasses, etc.

After the Earthquake

- Check for injuries. Do not move seriously injured personnel unless remaining where they are would create danger of further injury.
- Check utility lines for damage. Switch off power, water and gas until a utility official has inspected the building and determined it is safe.

- Stay out of severely damaged buildings. After shocks are common and may cause their collapse.
- Assist emergency personnel if requested, but do not go sight seeing.
- Be prepared for after shocks which may occur hours or days later.

14.3 EMERGENCY CONTACT/NOTIFICATION SYSTEM

The DTSC SSO shall post a copy of this section of the HASP in a conspicuous location at the Site. The emergency phone numbers included within this section include local emergency responders and medical facilities, and appropriate government officials.

SITE Project Emergency Telephone Numbers

Primary Numbers The following list provides names and telephone numbers for emergency contact personnel. In the event of a medical emergency, personnel will take direction from the SSO and notify the appropriate emergency organization..

Organization	Contact	Telephone
Ambulance	For extreme emergencies	911
Fire	Riverside Fire Department	911
Police	Riverside Police Department	911
SCCOCB Branch Chief	Tom Cota	(714) 484-5459
SCCOCB Unit Chief	Haissam Salloum	(714) 484-5463
IHS Cypress	Kathleen Yokota	(714) 484-5358
Hospital - Riverside Community Hospital	Emergency Room	(909) 788-3000
Poison Control Center		(800) 777-6476
National Response Center		(800) 424-8802
NIOSH: Health Hazard Evaluation		(513) 684-4382
OSHA: Technical Data Center		(202) 219-7500

Route to Hospital

The HARP form includes a map which shows the driving route from Devoe to the Riverside Community Hospital, which is the identified emergency medical facility for this project. The distance from the Site to the hospital is about 2.6 miles.

Take Durahart Street to Massachusetts Avenue and turn right. Continue along Massachusetts Avenue to Kansas Avenue and turn left. Proceed on Kansas Avenue to 3rd Street and turn right. Continue along 3rd Street to Market Street and turn left. Market Street becomes Magnolia Avenue after crossing 14th Street. The hospital is on the right side of the street, just beyond 14th Street. The Riverside Community Hospital is at 4445 Magnolia Avenue.

ATTACHMENT B

**HML AUTHORIZATION REQUEST
AND
SAMPLE ANALYSIS REQUEST FORMS**

AUTHORIZATION REQUEST FORM (ARF)

PART A: (By Requestor - PLEASE PRINT)

TAT Level: ☒ *1 ☐ 2 ☐ 3 ☐ 4
(check one)Requestor's Name Greg Sweel
Region/Unit Cypress/SMCOB
BACK-UP REQUESTOR Rania Zabaneh
SITE: Devoe Marine CoatingsPhone (714) 484-5413FAX (714) 484-5438Phone (714) 484-5479

AREA CODE

PART B: Analytical Requests (By Requestor) (Lab uses default methods listed below, ALL other requests please specify)

Inorganic Analysis	Number of Samples				Type
	Solid	Liquid	Water	Other	
pH					
Metals Scan (6010)	20		2		
Metal(s) Specific: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
WET					
Cyanides					
(others, write in)					
(others, write in)					
TCLP Analysis ** <input type="checkbox"/> <input type="checkbox"/>					
(see footnotes) (only if necessary) (do TCLP regardless)					
Metals					
Mercury					
Volatiles					
Semivolatiles					
(others, write in)					

Organic Analysis	Number of Samples				Type
	Solid	Liquid	Water	Other	
CL-Pest (8081)					
OP-Pest (8141)					
PCBs (8082)					
GRO (8015B)					
DRO / Motor Oil / Both					
n-Hexane Extractables (1664)					
Flash Point (1020)					
VOCs including BTEX (8260)			2		
VOCs - LO Level (5035)					
VOCs - HI Level (5035)					
SVOCs (8270)					
PAHs (8270) HCLP					
(others, write in)					
(others, write in)					

Analysis Objective: ☒ Drinking H₂O Standards (applies to DW only) ☐ Treatment Standards (specify analytes & level aimed)
(check box) ☐ Waste Characterization ☒ Others (contact Lab supervisors if needed)

Requirements: (must be shown on SAR also)

Site Characterization

Supervisors)

Soil: Low Level - Residential Preliminary Remediation Goals

Sample Arrival at Lab

0 5 0 1 0 2

O - HML

Number (AN)

H M R 4 7 2 1

Sample(s)

Name: Hazardous Materials Lab
Address: 700 Heinz St., Ste. 150
Berkeley, CA 94710

ARF's

Revision No.

Signing Officer (STO)

J. Zabaneh

Check box if cancelled

0 4 2 9 0 2

Expiration Date

0 5 0 8 0 2

days (requires unit chief's signature on SAR)

2 = 16 - 30 days

3 = 31 - 45 days

4 = when possible

If sample matrix type is appropriate Lab may perform a TTLC or screening test on the sample(s) first to determine if TCLP is needed.

GC/MS (GC/PID) may produce lower QLs for some matrices. (See HML user's manual for QL comparisons)

3/99R

Post-It™ brand fax transmittal memo 7671 # of pages 1

To: Greg Sweel
From: J. Zabaneh
Co. Co.
Phone # Phone #
Fax # Fax #

HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST		1. Authorization Number H M A 4 7 2 1		HML No. 011035		2. Page To 011054 1 of 3	
3. Requestor: GREG SWEEL		4. Phone (714) 484-5413		7. TAT Level: ① <i>[Signature]</i> Authorized By			
5. Address (To Receive Results): 5796 CORPORATE AVENUE CYPRESS, CA 90630		6. FAX (714) 484-5438					
8. Date Sampled APRIL 30, 2002				9. Codes (fill in all applicable codes)			
10. Activity: <input type="checkbox"/> SCD <input type="checkbox"/> SRPD <input checked="" type="checkbox"/> SMB <input type="checkbox"/> FPB <input type="checkbox"/> SPPT <input type="checkbox"/> ER/CL <input type="checkbox"/> Others				a. Office 04			
11. SAMPLING LOCATION C A D 0 9 7 5 7 4 0 7 3				b. INDEX 5 3 1 0			
a. EPA ID No.				c. PCA 1 4 8 1 5			
b. Site DEVUE MARINE COATINGS				d. MPC			
c. Address 2625 DURAHART STREET RIVERSIDE 92507				e. SITE 4 0 0 9 7 6 2 6			
Number Street City ZIP				f. County 33			
12. SAMPLES							
a. #ID	b. Collector's No.	c. Lab No.	d. Type	e. Type	f. Size	g. Field Information	
A	S 9-1-9	011035	SOIL	GLASS	4oz		
B	S 9-1-1	011036	"	"	"		
C	S 9-2-9	011037	"	"	"		
D	S 9-2-1	011038	"	"	"		
E	S 9-3-0	011039	"	"	"		
F	S 9-3-1	011040	"	"	"		
G	S 9-4-9	011041	"	"	"		
H	S 9-4-1	011042	"	"	"		
13. ANALYSIS REQUESTED							
a. <input type="checkbox"/> pH		f. <input type="checkbox"/> PAHs - 8310		i. <input type="checkbox"/> OP - Pest			
b. <input checked="" type="checkbox"/> Metal Scan A-H		g. <input type="checkbox"/> PCBs		m. <input type="checkbox"/> VOA - 8021			
c. <input type="checkbox"/> Metals (Spec)		h. <input type="checkbox"/> TPH		n. <input type="checkbox"/> VOA - 8260			
d. <input type="checkbox"/> W.E.T.		i. <input type="checkbox"/> Gasoline		o. <input type="checkbox"/> SVO - 8270			
e. <input type="checkbox"/> Flash Point		j. <input type="checkbox"/> Diesel		p. <input type="checkbox"/> TCLP - (specify)			
		k. <input type="checkbox"/> Cl - Pest		q. <input type="checkbox"/>			
14. SPECIAL REMARKS/ANALYSIS OBJECTIVE: LOW LEVEL (RESIDENTIAL PRELIMINARY REMEDIATION GOALS)							
15. SUPPLEMENTAL REQUESTS						Initials _____ Date _____	
16. CHAIN OF CUSTODY							
a.	<i>[Signature]</i> Signature	GREG SWEEL / Sr. HSE Name/Title	04/30/02 - 05/01/02 Inclusive Dates				
b.	<i>[Signature]</i> Signature	Teranahannon / Lab Asst. Name/Title	05/02/02 Inclusive Dates				
c.	_____ Signature	_____ Name/Title	_____ Inclusive Dates				
d.	_____ Signature	_____ Name/Title	_____ Inclusive Dates				
17. LAB REMARKS:							

HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST			1. Authorization Number			HML No. <u>011035</u>			2. Page																																			
			H M R 4 7 2 1			To <u>011054</u>			2 of 3																																			
3. Requestor: <u>GREG SWEEL</u>			4. Phone (714) <u>484-5413</u>			7. TAT Level: <u>①</u>			<u>Greg Sweel</u> Authorized By <div style="display: flex; justify-content: space-around; margin-top: 10px;"> 2 3 4 </div>																																			
5. Address (To Receive Results): <u>5796 CORPORATE AVENUE CYPRESS, CA 90630</u>			6. FAX ()			(circle one) <div style="display: flex; justify-content: space-around; margin-top: 10px;"> 2 3 4 </div>																																						
8. Date Sampled <u>APRIL 30, 2002</u>			9. Codes (fill in all applicable codes)			<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <tr> <td>a. Office</td> <td>0</td> <td>4</td> <td></td> <td></td> <td></td> </tr> <tr> <td>b. INDEX</td> <td>5</td> <td>3</td> <td>1</td> <td>0</td> <td></td> </tr> <tr> <td>c. PCA</td> <td>1</td> <td>4</td> <td>8</td> <td>1</td> <td>5</td> </tr> <tr> <td>d. MPC</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>e. SITE</td> <td>4</td> <td>0</td> <td>0</td> <td>9</td> <td>7</td> </tr> <tr> <td>f. County</td> <td>3</td> <td>3</td> <td></td> <td></td> <td></td> </tr> </table>			a. Office	0	4				b. INDEX	5	3	1	0		c. PCA	1	4	8	1	5	d. MPC						e. SITE	4	0	0	9	7	f. County	3	3			
a. Office	0	4																																										
b. INDEX	5	3	1	0																																								
c. PCA	1	4	8	1	5																																							
d. MPC																																												
e. SITE	4	0	0	9	7																																							
f. County	3	3																																										
10. Activity: <input type="checkbox"/> SCD <input type="checkbox"/> SRPD <input checked="" type="checkbox"/> SMB <input type="checkbox"/> FPB <input type="checkbox"/> SPPT <input type="checkbox"/> ER/CL <input type="checkbox"/> Others			11. SAMPLING LOCATION																																									
			a. EPA ID No.																																									
b. Site <u>DEVUE MARINE COASTINGS</u>			c. Address <u>2625 DURAHART STREET RIVERSIDE 92507</u>																																									
			Number Street City ZIP																																									
12. SAMPLES																																												
a. ID		b. Collector's No.		c. Lab No.		Sample d. Type		Container e. Type		f. Size		g. Field Information																																
A		S5-5-9		011043		SOIL		GLASS		4oz.																																		
B		S5-5-1		011044		"		"		"																																		
C		S5-6-9		011045		"		"		"																																		
D		S5-6-1		011046		"		"		"																																		
E		S5-6-1		011047		"		"		"																																		
F		S5-1-9		011048		"		"		"																																		
G		S5-2-9		011049		"		"		"																																		
H		S5-3-9		011050		"		"		"																																		
13. ANALYSIS REQUESTED																																												
a. <input type="checkbox"/> pH			f. <input type="checkbox"/> PAHs - 8310			i. <input type="checkbox"/> OP - Pest																																						
b. <input checked="" type="checkbox"/> Metal Scan <u>A-H</u>			g. <input type="checkbox"/> PCBs			m. <input type="checkbox"/> VOA - 8021																																						
c. <input type="checkbox"/> Metals (Spec)			h. <input type="checkbox"/> TPH			n. <input type="checkbox"/> VOA - 8260																																						
d. <input type="checkbox"/> W.E.T.			j. <input type="checkbox"/> Gasoline			o. <input type="checkbox"/> SVO - 8270																																						
e. <input type="checkbox"/> Flash Point			k. <input type="checkbox"/> Diesel			p. <input type="checkbox"/> TCLP - (specify)																																						
			l. <input type="checkbox"/> CI - Pest			q. <input type="checkbox"/>																																						
14. SPECIAL REMARKS/ANALYSIS OBJECTIVE: <u>LOW LEVEL (RESIDENTIAL PRELIMINARY REMEDIATION GOALS)</u>																																												
15. SUPPLEMENTAL REQUESTS						Initials _____ Date _____																																						
16. CHAIN OF CUSTODY																																												
a. <u>Greg Sweel</u> Signature			GAEG SWEEL / Sr. HSEG Name/Title			04/30/02 - 05/01/02 Inclusive Dates																																						
b. <u>Terana Hannon</u> Signature			Terana Hannon / Lab Asst Name/Title			05/02/02 - / / Inclusive Dates																																						
c. _____ Signature			_____ Name/Title			/ / - / / Inclusive Dates																																						
d. _____ Signature			_____ Name/Title			/ / - / / Inclusive Dates																																						
17. LAB REMARKS:																																												

HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST		1. Authorization Number		HML No. <u>011035</u>		2. Page	
		H M R 4 7 2 1		To <u>011054</u>		3 of 3	
3. Requestor: <u>GREG SWEEL</u>				4. Phone (714) <u>484-5413</u>			
5. Address (To Receive Results): <u>5796 CORPORATE AVENUE, CA 90630</u>				6. FAX (714) <u>484-5438</u>			
8. Date Sampled: <u>APRIL 30, 2002</u>				7. TAT Level: <u>①</u> (circle one) <i>[Signature]</i> Authorized By			
10. Activity: <input type="checkbox"/> SCD <input type="checkbox"/> SRPD <input checked="" type="checkbox"/> SMB <input type="checkbox"/> FPB <input type="checkbox"/> SPPT <input type="checkbox"/> ER/CL <input type="checkbox"/> Others				9. Codes (fill in all applicable codes)			
11. SAMPLING LOCATION <u>CAD 097574073</u> a. EPA ID No.				a. Office <u>D4</u>			
				b. INDEX <u>5310</u>			
				c. PCA <u>14815</u>			
				d. MPC			
				e. SITE <u>400976-26</u>			
				f. County <u>33</u>			
b. Site <u>DEVDE MARINE COATINGS</u>							
c. Address <u>2625 DURAHART STREET RIVERSIDE 92507</u> Number Street City ZIP							
12. SAMPLES							
a. ID		b. Collector's No.		c. Lab No.		d. Type	
A		M W - 1 - V		011051		GROUNDWATER	
B		M W - 1 - M		011052		"	
C		M W - 5 - V		011053		"	
D		M W - 5 - M		011054		"	
E							
F							
G							
H							
e. Type		f. Size		g. Field Information			
GLASS		2x40ml					
PLASTIC		1 liter					
GLASS		2x40ml					
PLASTIC		1 liter					
13. ANALYSIS REQUESTED							
a. <input type="checkbox"/> pH				f. <input type="checkbox"/> PAHs - 8310			
b. <input checked="" type="checkbox"/> Metal Scan <u>B, D</u>				g. <input type="checkbox"/> PCBs			
c. <input type="checkbox"/> Metals (Spec)				h. <input type="checkbox"/> TPH			
d. <input type="checkbox"/> W.E.T.				i. <input type="checkbox"/> Gasoline			
e. <input type="checkbox"/> Flash Point				j. <input type="checkbox"/> Diesel			
				k. <input type="checkbox"/> CI - Pest			
				l. <input type="checkbox"/> OP - Pest			
				m. <input type="checkbox"/> VOA - 8021			
				n. <input checked="" type="checkbox"/> VOA - 8260 <u>A, C</u>			
				o. <input type="checkbox"/> SVO - 8270			
				p. <input type="checkbox"/> TCLP - (specify)			
				q. <input type="checkbox"/>			
14. SPECIAL REMARKS/ANALYSIS OBJECTIVE: <u>DRINKING WATER (MAXIMUM CONTAMINANT LEVELS)</u>							
15. SUPPLEMENTAL REQUESTS				Initials _____ Date _____			
16. CHAIN OF CUSTODY							
a. <u>Greg Sweel</u> Signature		GREG SWEEL / Sr. HSE		04/30/02 - 05/01/02		Inclusive Dates	
b. <u>Terana Hannon</u> Signature		Terana Hannon / Lab Asst		05/02/02 - / /		Inclusive Dates	
c. _____ Signature		Name/Title		/ / - / /		Inclusive Dates	
d. _____ Signature		Name/Title		/ / - / /		Inclusive Dates	
17. LAB REMARKS:							

INSTRUCTIONS

1. **Authorization No.** - Enter the number acquired from HML's STO.
2. **Page** ___ of ___ - Enter number of this page and the total number of pages to complete this request.
3. **Requestor's Name.**
4. **Phone** - Enter Area Code and Phone Number of Sample Collector.
5. **Address** where results should be sent.
6. **Number** to FAX results.
7. **TAT Level - circle one:** Turnaround Time Level.
 Level 1: 15 days and requires the signature of the unit chief on SAR.
 Level 2: 30 days; Level 3: 35 days and Level 4: when possible.
8. **Date Sampled** - Enter date of sample collection.
9. **Codes** - All applicable codes must be entered.
 a. See Table below.
 b-e. See DTSC lists of these codes.
 f. Enter County Code from Table 1.
10. **Activity** - Check the appropriate box to indicate DTSC activity generating the samples. Check "Other" for non-DTSC samples.
11. **SAMPLING LOCATION** - Where samples are collected.
 11a. **EPA ID No.** - Enter U.S. EPA twelve-digit identification number of the site identified in item 10b.
 11b. **Site** - Enter name of generator, facility or site.
 11c. **Address** - Enter address of generator, facility or site designated in 11b.
 County two-digit numbered code should be entered in item 9f.
12. **SAMPLES** - Enter specific information as indicated:
 a. **ID** - Predesignated line identification.
 b. **Collector's No.** - Enter the collector's sample number(s). Number should not exceed 9 digits and/or letters to fit spaces.
 c. **Lab No.** - For Lab use only.
 d. **Type** - Enter sample type, e.g., sludge, soil, etc.
 e. **Container Type** - Enter the appropriate container code(s) listed in Table III.
 f. **Container Size** - Enter the appropriate container size code(s) listed in Table III. Full size is required for analysis.
 g. **Field Information** - Enter information significant to personnel safety and analysis requested, e.g., cyanide contamination suspected, air volume if applicable, etc.
13. **ANALYSIS REQUESTED** - Check one or more of the boxes as applicable. For each box checked, enter the line identification code (item 12a) to designate the sample(s) to be analyzed, e.g., ☒ pH A, C and H.
14. **SPECIAL REMARKS/ANALYSIS OBJECTIVE** - Enter any specific instructions or remarks pertinent to sample(s) handling, analysis, D.L. or custody, e.g., split sample(s) given to company, etc.
15. **SUPPLEMENTAL REQUESTS** - Enter procedure(s) requested, line or Sample ID, Initial, and Date for **Supplemental Requests** only.
16. **CHAIN OF CUSTODY** - Chronologically, the person(s) who had custody of the sample(s) enter information above the line as designated. Item 16d for the latest in the chain of custody.
17. For Lab use only.

Table 1 - CALIFORNIA COUNTY CODE NUMBERS (Item 9f)

Code Number	County	Code Number	County	Code Number	County
01	Alameda	20	Madera	39	San Joaquin
02	Alpine	21	Marin	40	San Luis Obispo
03	Amador	22	Mariposa	41	San Mateo
04	Butte	23	Mendocino	42	Santa Barbara
05	Calaveras	24	Merced	43	Santa Clara
06	Colusa	25	Modoc	44	Santa Cruz
07	Contra Costa	26	Mono	45	Shasta
08	Del Norte	27	Monterey	46	Sierra
09	El Dorado	28	Napa	47	Siskiyou
10	Fresno	29	Nevada	48	Solano
11	Glenn	30	Orange	49	Sonoma
12	Humboldt	31	Placer	50	Stanislaus
13	Imperial	32	Plumas	51	Sutter
14	Inyo	33	Riverside	52	Tehama
15	Kern	34	Sacramento	53	Trinity
16	Kings	35	San Benito	54	Tulare
17	Lake	36	San Bernardino	55	Tuolumne
18	Lassen	37	San Diego	56	Ventura
19	Los Angeles	38	San Francisco	57	Yolo
				58	Yuba

**Table II
DTSC Offices (Item 9a)**

Sacramento	01
Fresno	1F
Berkeley	02
Glendale	03
Long Beach	04
HQ Units	05

HML Phone & FAX Numbers

HML Berk	CALNET 8-571-3003 (510) 540-3003
HML L.A.	(213) 580-5796
HML STO	CALNET 8-571-3111 (510) 540-3111 FAX 8-571-5271

Table III - Container Type and Size (Items 12e and 12f)

Liquid Samples		Solid Samples	
Type	Size	Type	Size
Organic Analysis, Gen	G, 1000 ml	G	250 gm
Organic Analysis, VOA	G-V, 40 ml	G-V	40 gm
Organic Analysis, Tox	Ambr G-V, 100 ml	Ambr G-V	40 gm
Inorganic Analysis	P, G, 1000 ml	G	250 gm

P = Polyethylene Container and Closure, G = Glass Container with Teflon Closure, G-V = Glass VOA vial or bottle with Teflon Septum.

HML #

011035 → 011054

REC'D FROM:

Region 4

REC'D FROM

FEDEX BY:

myself

DATE:

02 May 02

FedEx USA Airbill

FedEx
Tracking
Number

804110237861

Form
I.D. No.

0200

Recipient's Copy

1 From:  Date: 05/01/02

Sender's Name: GREG SWEEL Phone: 714 484-5300

Company: DEPT OF TOXIC SUB CONTROL

Address: 5796 CORPORATE AVE

City: CYPRESS State: CA ZIP: 90630

2 Your Internal Billing Reference Information

3 To Recipient's Name: JARNAIL GARCHA Phone: (510) 540-3468

Company: DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Company: HAZARDOUS MATERIALS LABORATORY

Address: 700 HEINZ STREET SUITE 150

(To "HOLD" at FedEx location, print FedEx address here)

City: BERKELEY State: CA ZIP: 94710

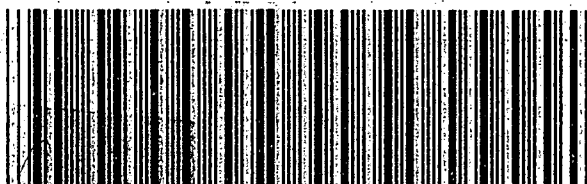
For HOLD at FedEx Location check here

☐ Hold Weekday
(Not available with
FedEx First Overnight)

☐ Hold Saturday
(Available for FedEx Priority Overnight
and FedEx 2Day only)

For Saturday Delivery check here

☐ (Extra Charge, Not available to all locations)
(Available for FedEx Priority Overnight
and FedEx 2Day only)



8 0 4 1 1 0 2 3 7 8 6 1

4a Express Package Service Packages under 150 lbs. Delivery commitment may be later in some areas.

☒ FedEx Priority Overnight (Next business morning)
☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx First Overnight (Earliest next business morning delivery to select locations) (Higher rates apply)
☐ FedEx 2Day (Second business day)
☐ FedEx Express Saver (Third business day)
FedEx Letter Rate not available. Minimum charge: One pound rate.

4b Express Freight Service Packages over 150 lbs. Delivery commitment may be later in some areas.

☐ FedEx Overnight Freight (Next business day)
☐ FedEx 2Day Freight (Second business day)
☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. See back for detailed descriptions of freight services.)

5 Packaging ☐ FedEx Letter ☐ FedEx Pak ☐ FedEx Box ☐ FedEx Tube ☒ Other
Declared value limit \$500

6 Special Handling. (One box must be checked)
Does this shipment contain dangerous goods? ☐ No ☐ Yes (Shopper's Declaration not required)
☐ Dry Ice ☐ CA Cargo Aircraft Only
Dry Ice, 9 UN 1845 x kg. *Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment ☐ Obtain Recipient's FedEx Account No.
Bill to: ☐ Sender (Account no. in section 1 will be billed) ☐ Recipient (Enter FedEx account no. or Credit Card no. below) ☒ Third Party ☐ Credit Card ☐ Cash/Check



Total Packages: 1 Total Weight: 5.16 lbs Total Declared Value: \$0.00 Total Charges: \$0.00

*When declaring a value higher than \$100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

Questions?
Call 1-800-Go-FedEx (800)463-3339

288

Rev. Date 8/97
Part #151556
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GSFE 1/00

California Department of Toxic Substance Control
Hazardous Materials Laboratory
700 Heinz Street, Suite 150, Berkeley, CA 94710
Phone: (510) 540-3101 Fax: (510) 540-3615
3610

SAMPLE RECEIPT

Authorization No. HMR4721

HML Sample No(s): 011035 to 011054

Collector's No.: SS-1-0 to MW-5-M

Custody Seals: Present P Absent Broken , but 011052 &
011054 around a plastic bag
If present, indicate location on sample(s): _____

Sample Condition:

- ☒ Temperature of samples Acceptable.
- ☐ Sample container received damaged.
- ☐ Insufficient sample volume/weight for all types of analysis.
- ☐ Sample analysis request form not received with the sample (s).
- ☐ Discrepancies between ARF and the SAR.
- ☐ Discrepancies between SAR information and the samples.
- ☐ Sample analysis request not complete.
- ☐ Sample containers not numbered or illegibly labeled.
- ☐ Chain of Custody not complete.
- ☐ Samples received without proper preservation.
- ☐ No information of sample preservation.
- ☐ Other (specify): _____

Action Taken:

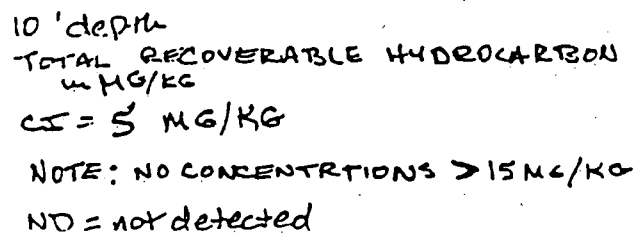
- ☒ None
- ☐ Sample analysis on hold for further information.
- ☐ Informed the sample collector of problem.
- ☐ Sample analyzed as received.
- ☐ Other (specify): _____
- ☐ State if corrected.

Sample(s) processed by: _____ Signature: Maria Harris Date: 02 May 02

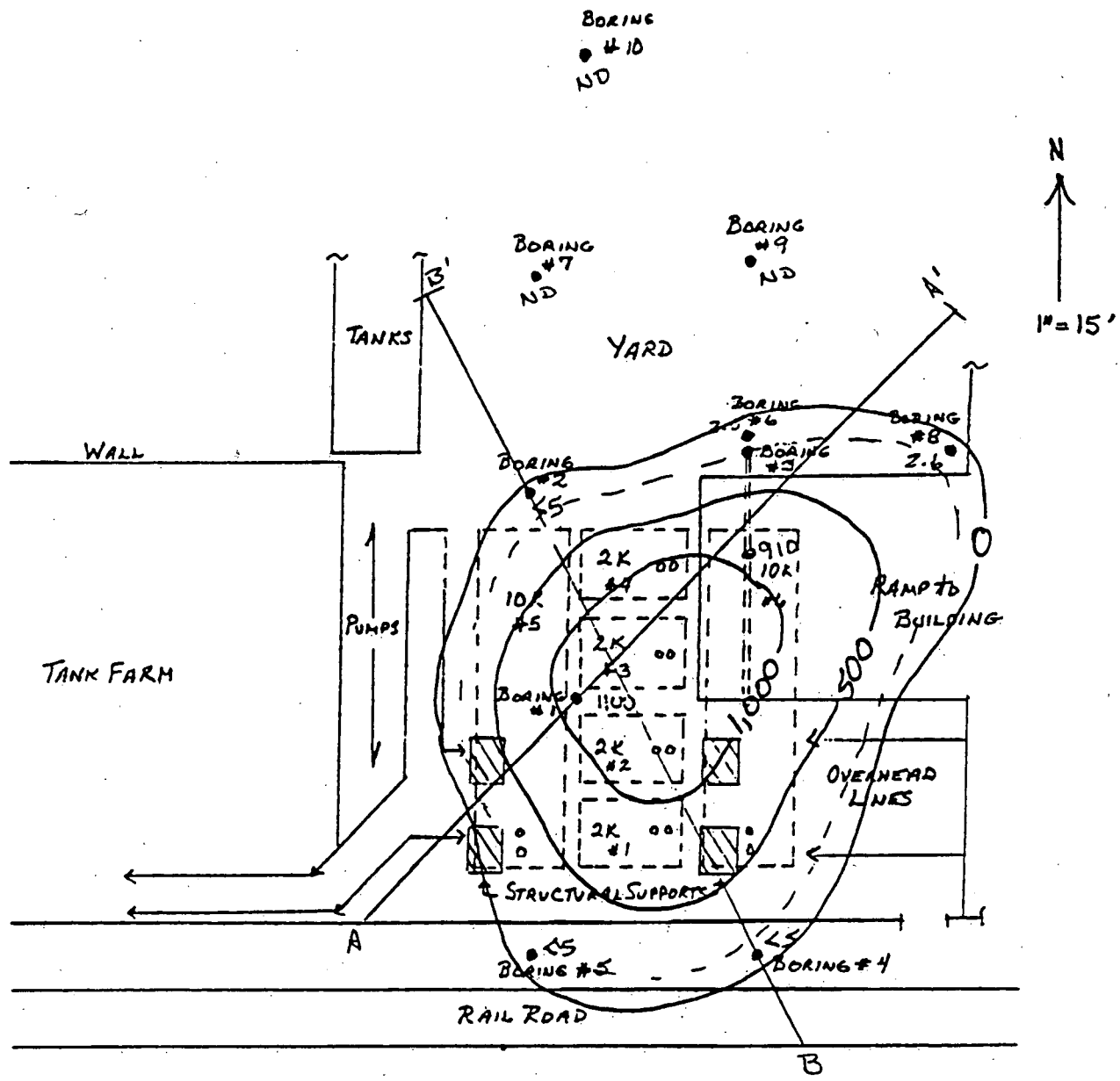
Supervisor's approval (if any action taken): _____ Date: _____

ATTACHMENT C

FIGURES OF TRPH CONCENTRATIONS AT DIFFERENT DEPTHS

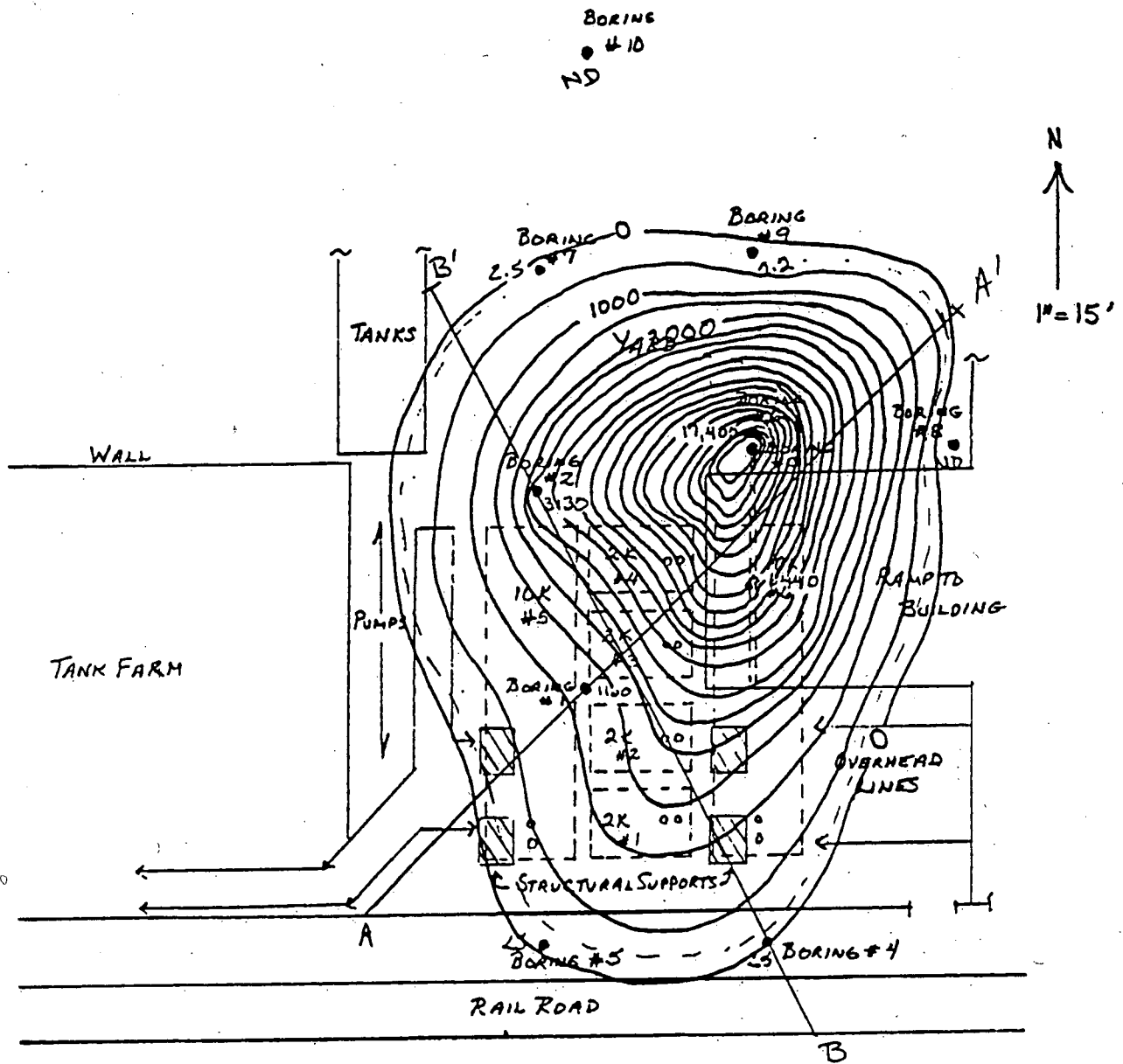


ENGINEERING-SCIENCE



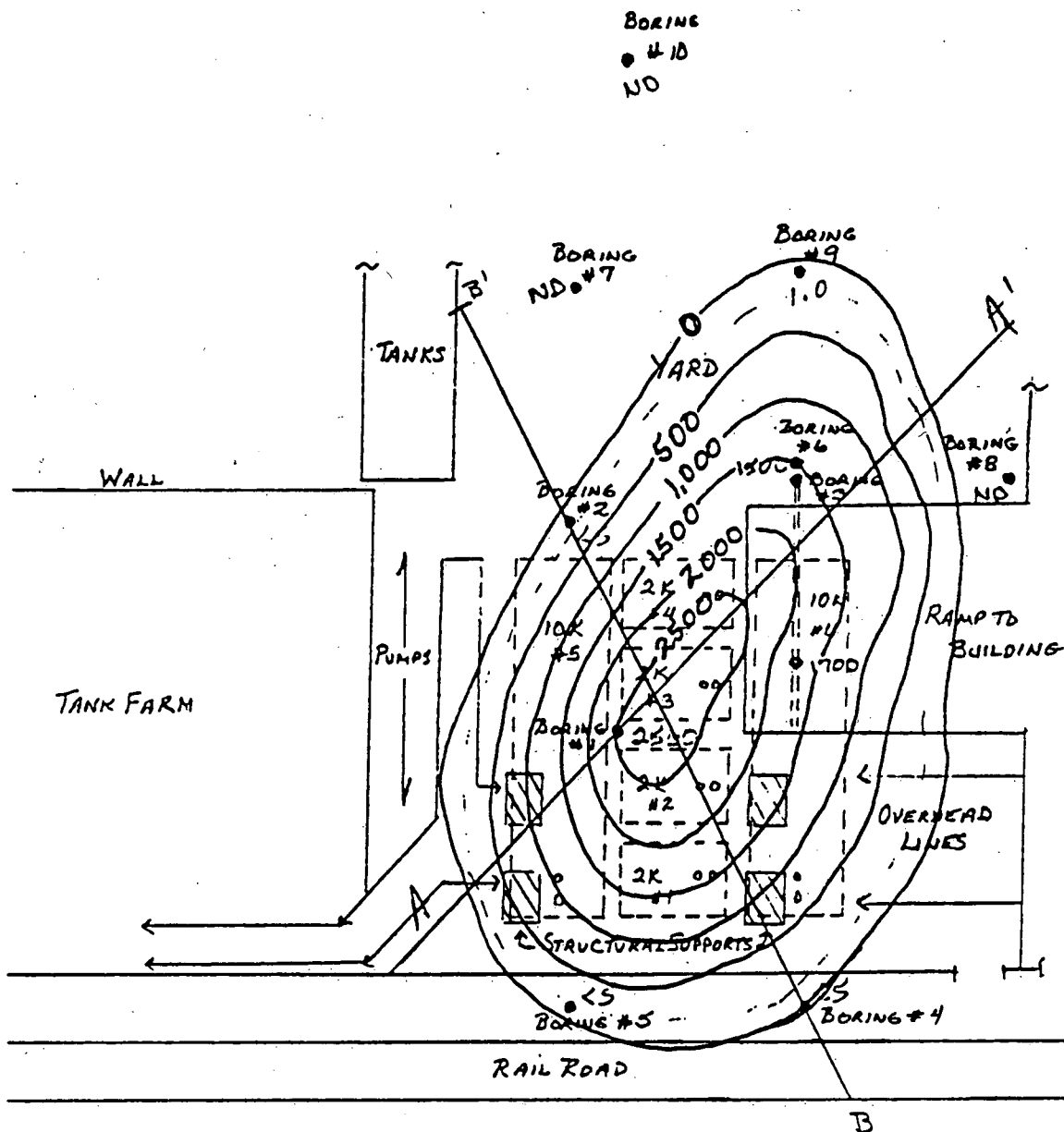
20' depth
 Tot. Rev. Hydrocarbons
 in mg/kg
 CI = 500 mg/kg

TRPH CONCENTRATIONS 20 FT BGS (GEO SEC) DEVOE COATINGS



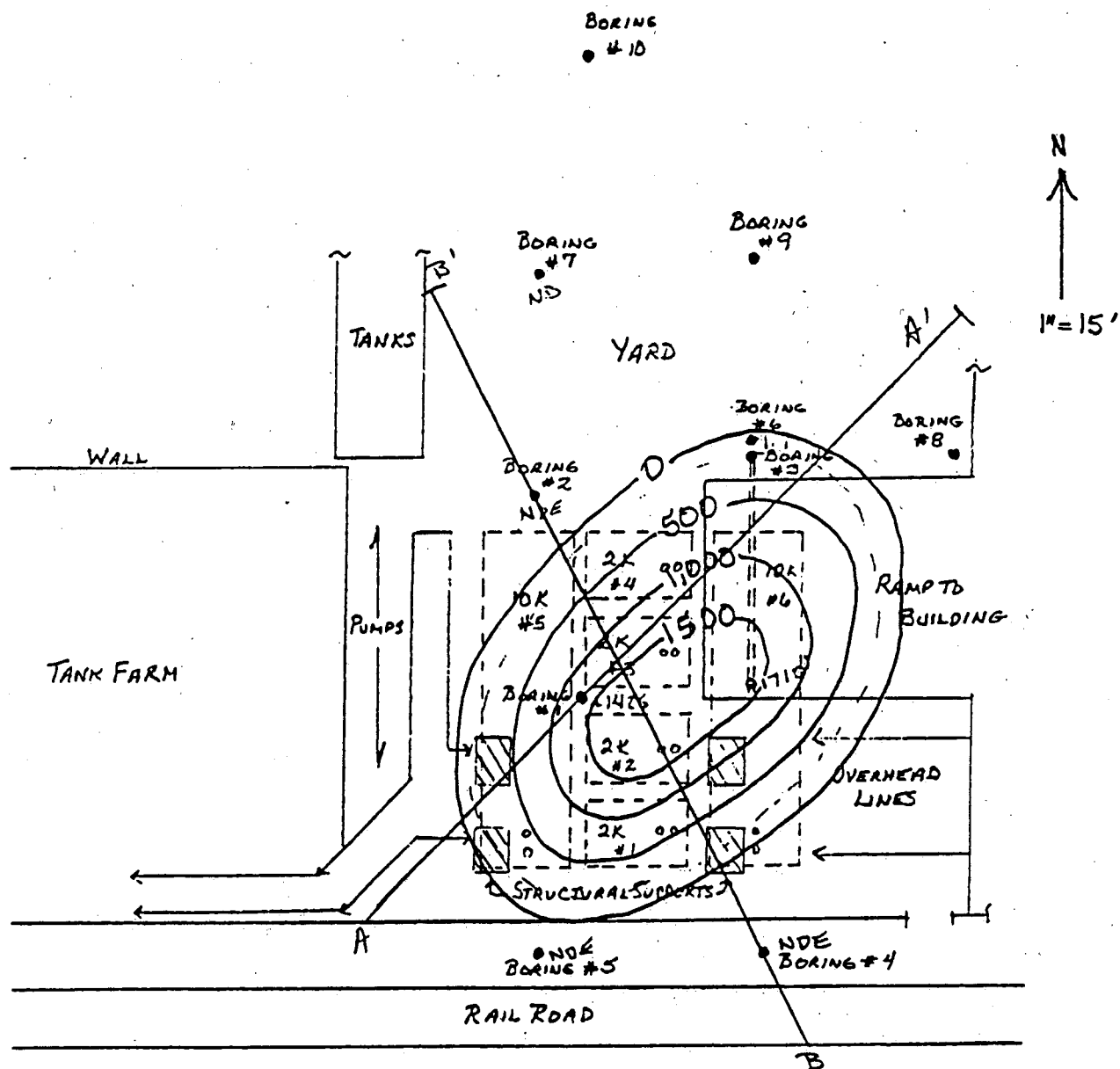
30' Depth
 TOTAL RECOVERABLE HYDROCARBON
 IN MG/KG
 CI = 500 MG/KG

TRPH CONCENTRATIONS 30 FT BGS (GEO SEC) DEVOE COATINGS



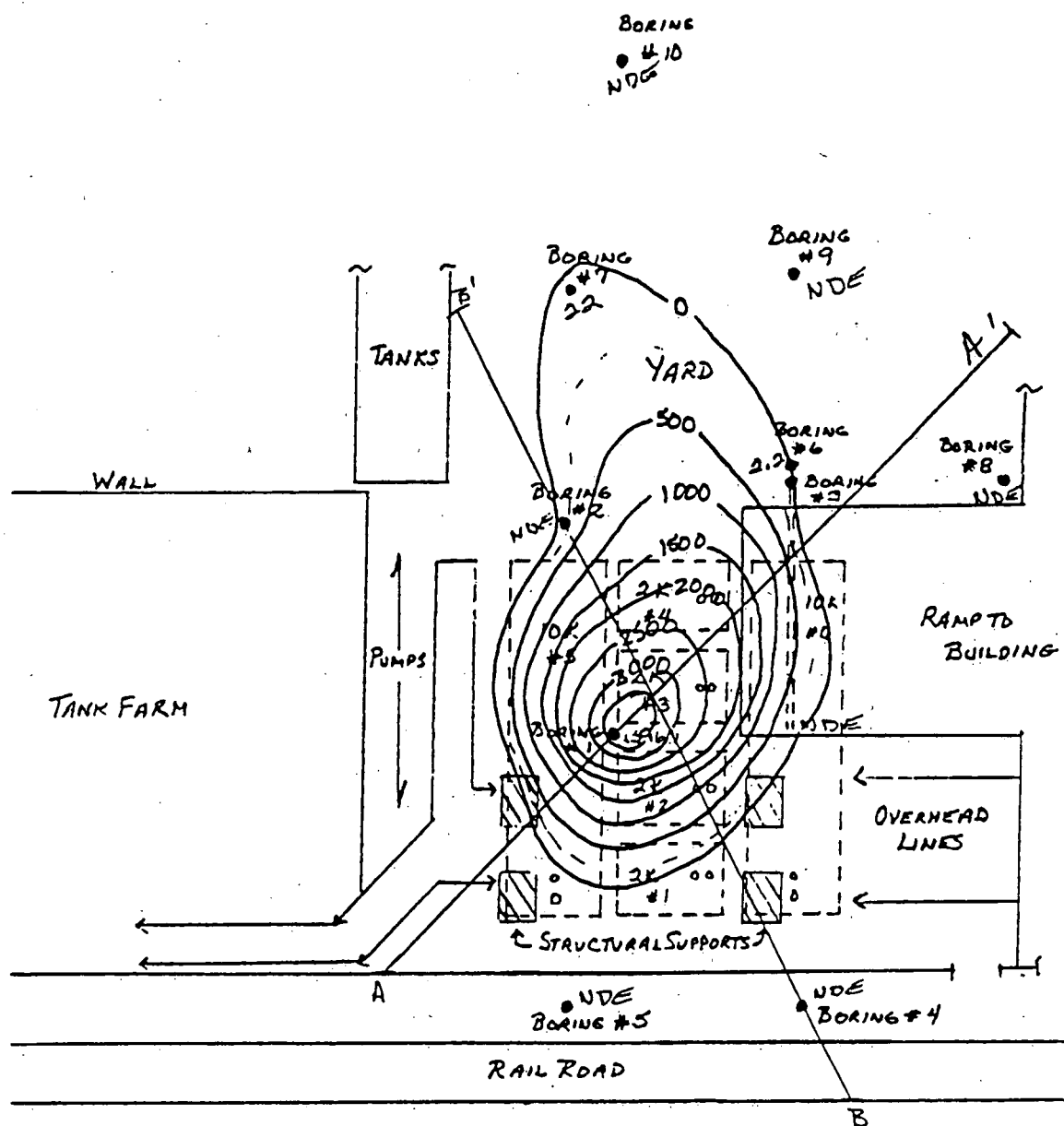
AD' depth
TOT. REC. HYDROCARBON
in mg/Kg.
CI = 500 mg/kg

TRPH CONCENTRATIONS 40 FT BGS (GEO SEC)
DEVOE COATINGS



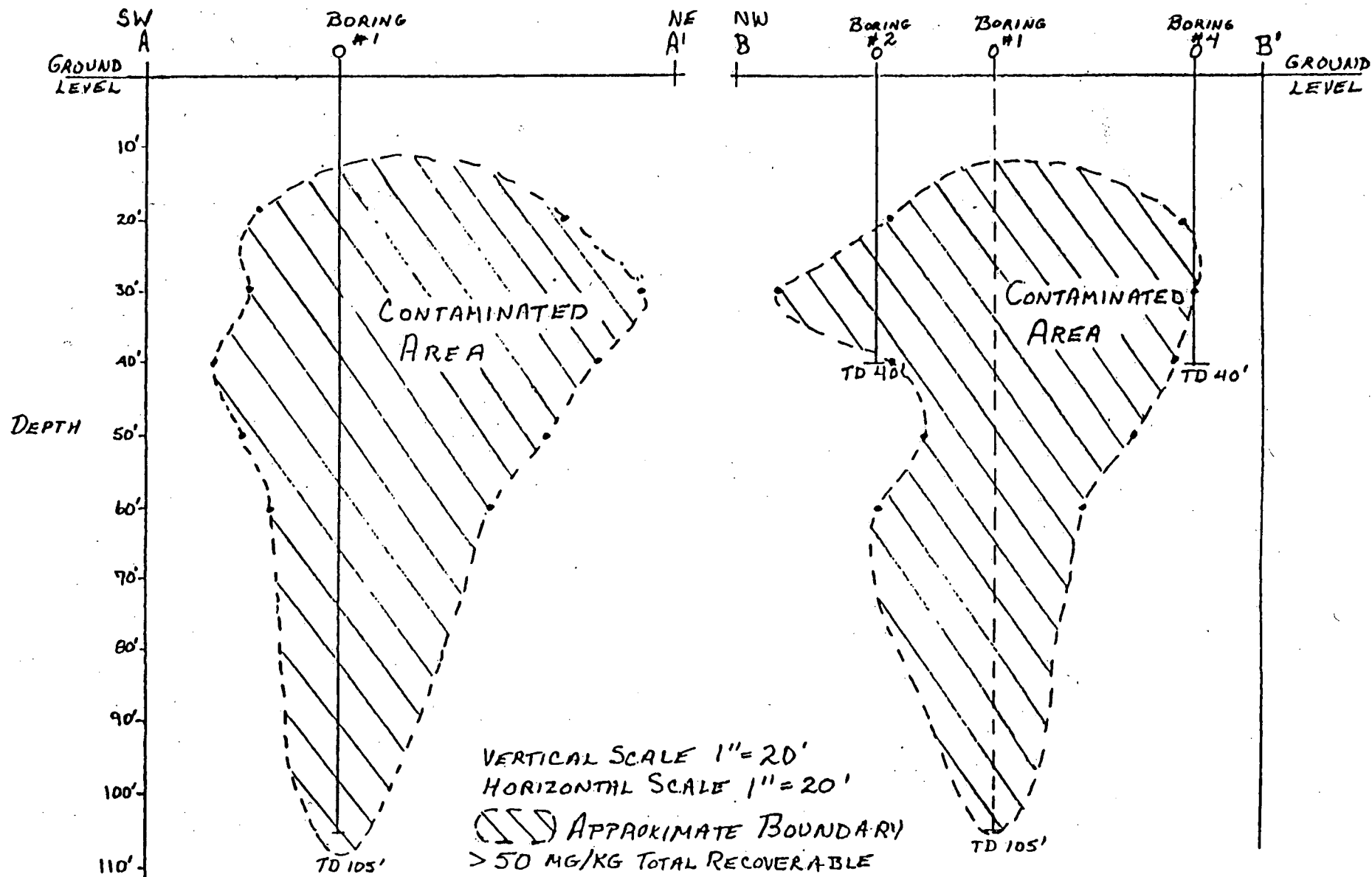
50' depth
 TOT REC. HYDROCARBON
 in MG/KG
 CI = 500 MG/KG
 ND = not detected

TRPH CONCENTRATIONS 50 FT BGS (GEO SEC) DEVOE COATINGS



60' Depth
 Tot. Recoverable Hydrocarbon
 in MG/Kg
 CI = 500 MG/KG

TRPH CONCENTRATIONS 60 FT BGS (GEO SEC) DEVCOE COATINGS



GEO SEC CROSS SECTION **DEVOE COATINGS**

From Geo SEC, 1988

ATTACHMENT D

**COMPLETED HARP
AND
POST HARP FORMS**

HAZARD APPRAISAL AND RECOGNITION PLAN PRE-SITE VISIT FORM

SECTION A. FIELD TEAM

Prepared By: RANIA A. ZABANEH
Date: 4/19/02
Phone: (714) 484-5479

Name	Unit/Agency	Responsibility Lead Field Staff
1. <u>Greg Sured</u>	<u>DTSC/SMP</u>	<u>lead</u>
2. <u>Rania Zabaneh</u>	<u>DTSC/SMP</u>	<u>staff</u>
3. <u>Al Shami</u>	<u>DTSC/SMP</u>	<u>staff</u>
4. <u>Supervisor is responsible for verifying</u>		
5. <u>field eligibility of all listed employees.</u>		

SECTION B. SITE DESCRIPTION

Site Name: Devac Marine Coatings
PCA No: 14815 Project #: 400946 WP: 26
Address: 2625 Durawart Street
City: Riverside State: CA Zip: 92502-2608
Site Phone No.: ()

NOTE: Attach Map of site and directions to Hospital

Contact Person:

Type of Operation Waste Stream (Describe): Manufactured paint and coatingsPurpose of Visit (Describe): Preliminary Assessment + surface soil sampling + observation of groundwater well sampling collectionSite Visit Date(s): 4/30/02Estimated Time on Site: Hours/Day 8 hrs DaysNearest Hospital and Address: Riverside Community Hospital
4445 Magnolia Avenue, Riverside, CA 92501-4135Phone No.: (909) 788-3000

SECTION C. NUMBER OF SAMPLES TO BE COLLECTED

Air	Surface
Drum(s)	Surface Water
Ground Water	Tank(s)
Soil/Sediment	Waste/Sludge
Sump/Pit	Other

Soil/Sediment: 30

SECTION D. POTENTIAL HAZARDS

1. Chemical Hazards

☒ Carcinogens Benzene
☐ Corrosives
☐ Developmental Health Hazards (Teratogen)
☐ Dusts
☐ Explosives
☒ Flammables Toluene
☐ Inorganic Vapors Gases
☒ Metals Ba, Zn, Pb, Ti, Cu
☐ Oxidizers
☐ PCB's
☐ Pesticides
☐ Reproductive Health Hazards
☐ Skin Absorption
☒ Solvents TCE, PCE, Acetone, Aroclor

(Use This Space to describe hazards)

Maintain safe distances from all processes and potential hazards. Metals detected are approximately at 8/G levels. Remain upwind as is feasible; remain hydrated and in shaded areas.

SECTION E. BASIC INFORMATION ON POTENTIAL HAZARDS

(Attach Copies of HARP Chemical Data Sheets or other appropriate information as suggested in instructions)

SECTION F. EXPOSURE CONTROL METHODS

☐ Engineering ☐ Administrative ☒ Work Practices
Describe: Wear PPE such as boots, gloves, eye protection, hard hats, hearing protection
common sense precautions while sampling

SECTION G. REQUIRED PERSONAL PROTECTIVE EQUIPMENT

Level of Protection: ☐ B ☐ C ☒ D
Glove(s): Outer = O Inner = I
☒ Cotton/Vinyl ☒ Cloth Coveralls
☐ Silver Shield / 4H ☒ Tyvek
☐ Neoprene ☐ P.E. Tyvek
☐ Nitrile ☐ Saranex
☐ PVC/Monkey Glip ☐ Tychem
☐ Grip Glove / Kevlar ☐ Baracade/Chemtuff
☐ Viton ☐ Other:
Respirator: ☐ A/P Cartridge: ☐ SCBA ☐ Escape (ELSA - 5 min.)

Other Safety Gear:

☐ Binoculars ☒ Hearing Protection Plugs ☒ Muff
☒ Boot Covers ☐ Safety Vest (As needed)
☒ Boots ☐ Two-Way Communication Kit
☒ Eye Protection ☐ Other:

SECTION H. SURVEY EQUIPMENT

☐ Combustible Gas/Oxygen Meter
☒ Photoionization Detector Probe: 10.7 env. area
☐ Organic Vapor Analyzer (OVA) ☐ TVA 1000
☐ Dräger Tubes / CMS (Specify:)
☐ pH Meter/Paper ☐ WBGT Meter ☐ Noise Dosimeter
☐ Pac III Proposed work rest
☐ Sound Level Meter
☐ Radiation Dosimeter ☐ Radiation Meter (Ludlum 19)
☐ Aerosol/Particle Monitor
☐ Other (Specify: XRF - obtain from Glendale office.)

SECTION I OTHER HYGIENE AND SAFETY EQUIPMENT

Available	On Site	Bring
	<input type="checkbox"/>	<input type="checkbox"/> Canopy/Tarp/Umbrella
	<input type="checkbox"/>	<input checked="" type="checkbox"/> Drinking Water
	<input type="checkbox"/>	<input type="checkbox"/> Shower/Eye Wash
	<input type="checkbox"/>	<input type="checkbox"/> Fire Extinguisher
	<input type="checkbox"/>	<input checked="" type="checkbox"/> First Aid Kit
	<input type="checkbox"/>	<input checked="" type="checkbox"/> Plastic Sheet/Bucket/Bags
	<input type="checkbox"/>	<input type="checkbox"/> Portable Toilets
	<input type="checkbox"/>	<input type="checkbox"/> Washing Facilities

SECTION J PERSONAL MONITORING

☐ Heart Rate ☐ Oral Temperature
Do you need Industrial Hygiene Monitoring? ☐ Yes ☒ No
If yes, What Type? ☐ Noise ☐ Air ☐ Other (Specify:)

SECTION K REVIEW / APPROVAL

Health and Safety Unit (Review) D. M. Brunt
Supervisor (Approval) [Signature]
Date: 04/23/02
Date: 4/24/02

HOW TO FILL OUT THE HARP FORM

The following are very brief instructions for filling out this Form. For complete HARP instructions, see your HARP manual. If you have further questions, ask your regional industrial hygienist.

SECTION A: *Field Team:* Make sure correct Unit (SEB, Permits, SMB, ATD, etc.) or Agency (Water Board, EPA, etc.) is noted. This Form is intended for DTSC staff only, so include other agencies only if you are working together as one team.

Under "Responsibility" not which task each team member will be doing, such as, Site Safety Officer, Instrument Technician, Sample Taker etc. Also indicate *lead staff* person: is same as Site Safety Officer. Indicate as such.

SECTION B: *Site Description:* Note site name, PCA code number, address, contact person, and site and hospital map should be attached.

Site Phone: Phone number at facility if it is available. If no phone, give closest phone number if available.

Type of Operation/ Waste Stream: Accurately describe what is being manufactured, treated or stored, or discharged at this site.

Purpose of Visit: Accurately describe what you intend to do during this visit, Possibilities include: taking samples, walk-through (for what purpose?), overseeing contractor (what is contractor doing?), etc.

Site Visit Date: Self-explanatory

Estimated time on Site: Give best estimate of time, number of days,

Nearest Hospital: Call the nearest Hospital to confirm that it can accommodate emergency cases from a hazardous waste site. Get the correct phone number for emergencies. Attach the correct page from a Thomas Brother's or other street map, with hospital clearly marked and instructions.

SECTION C: Note type and number of samples to be taken

SECTION D: *Potential Hazards:* Write in a specific name of chemical whose group you have checked and note highest concentration or lab data, if available. Use space to describe hazards,

SECTION E: Collect and attach information on the hazards involved. Information may be obtained from file, complainant, HARP Data Sheets, etc. Include layout of site, if available. When no data sheets are available, attach a summary of acute and chronic effects.

SECTION F: Check appropriate box for engineering and Administrative control or Work Practices. Give explanation.

SECTION G: Check Level Protection.

Glove(s): Indicate appropriate glove used by "O" or "I" example: Outer glove-- O =viton, inner glove-- I =cotton.

Suit: Check type of suit used.

Other Safety Gear: Check Appropriate items.

SECTION H: Check Appropriate items.

SECTION I: Check appropriate items.

SECTION J: Check boxes, if applicable

SECTION K: Industrial hygienist should review HARPP Form prior to supervisor's signature.

Page 2 of 2

HAZARD APPRAISAL AND RECOGNITION PLAN DAILY SITE VISIT DOCUMENT

Describe work performed: COLLECTED SOIL
AND GROUNDWATER SAMPLES

Site Visit Date APRIL 30, 2002 Time on Site (hours) 6

Protection Level

Duration PPE Worn (hours)

Activity Performed

1 GREG SWEEL
2 RANIA ZABANEH
3 AL SHAMI
4 HAISSAM SALLOUM

↓

Collect soil + groundwater samples

1	Clothing	74UEIS	Gloves	NITRILE	Respirator (cartridge)	N/A	Other	BOOTS/COVERS, eye protection
2	Clothing	✓	Gloves	✓	Respirator (cartridge)	✓	Other	✓
3	Clothing	✓	Gloves	✓	Respirator (cartridge)	✓	Other	✓
4	Clothing	✓	Gloves	✓	Respirator (cartridge)	✓	Other	✓
5	Clothing		Gloves		Respirator (cartridge)		Other	
6	Clothing		Gloves		Respirator (cartridge)		Other	

☐ Yes ☒ No Explain

☐ Yes ☒ No Explain

SECTION E. SURVEY EQUIPMENT USED AND READINGS OBTAINED

Instrument	Location	Time	Reading	Description/Background
MINI RAE 2000	well HEADS	VARIOUS	1-2 ppm	0 ppm

ID No. 110-00-3619

Calib Date 4/23/02

ID No. 55133-4145-1542-165

Calib. Date: _____

ID No. _____

Calib. Date: _____

SECTION F WAS PERSONAL MONITORING CONDUCTED? ☐ Yes ☐ No

SECTION G. SAMPLES COLLECTED 16 soil samples

SECTION H: INDICATE METHOD(S) OF DECONTAMINATION OF PPE/MONITORING EQUIPMENT/VEHICLES

Describe: Disposable PPE + sampling equip (baiters + scoops,

SECTION I: EXPOSURE SYMPTOMS?

☐ Yes ☒ No

If yes, check items below, identify personnel by number used above

Nose Throat Irritation

Faint/Dizzy

Eye Irritation

Other:

Headache

Chills

Physical Injuries

Heat Stress

Skin Irritation

Nausea

Explanation (Identify personnel by number used above.)

Person	Effects Reported to Supervisor		Effects Reported to Industrial Hygienist		Medical Treatment Given (Explain)	
	Yes	No	Yes	No	Yes	No

Explanation

HOW TO FILL OUT THE DAILY SITE VISIT DOCUMENT

The following are very brief instructions for filling out this form. For complete HARP instructions, see your HARP manual. If you have further questions, ask your regional industrial hygienist.

Page 2 — DAILY SITE VISIT FORM

SECTION A: Each day that the site is visited, a new page 2 form is to be filled out. Accurately describe the work that was completed on this day.

SECTION B: Accurately describe the specific activity performed by each member of the team.

SECTION C: Be sure to write in numbers to identify which type of personal gear was worn by each team member [e.g., gloves—type: neoprene (1), (3), nitrile (2), (4)]. If any other type of personal protective equipment is used, identify it in "Other" column.

SECTION D: Explain any problems with personal protective equipment (e.g., tearing, ripping, difficulty with use). Identify person by number who experienced the problem.

SECTION E: Make sure each instrument is calibrated, and a background (off-site) reading is taken. Record the identification number for each instrument.

SECTION F: If personal monitoring was conducted, indicate what type. Attach copy of industrial hygiene audit.

SECTION G: Indicate what type and number of samples were collected.

SECTION H: Describe decontamination method(s).

SECTION I: If exposure symptoms are experienced, identify person by number next to symptom.

Starting from: 2625 Durahart St, Riverside, CA 92507-2608

★ **Riverside Community Hospital**
4445 Magnolia Ave, Riverside, CA 92501-4135

Arriving at:
(909) 788-3000

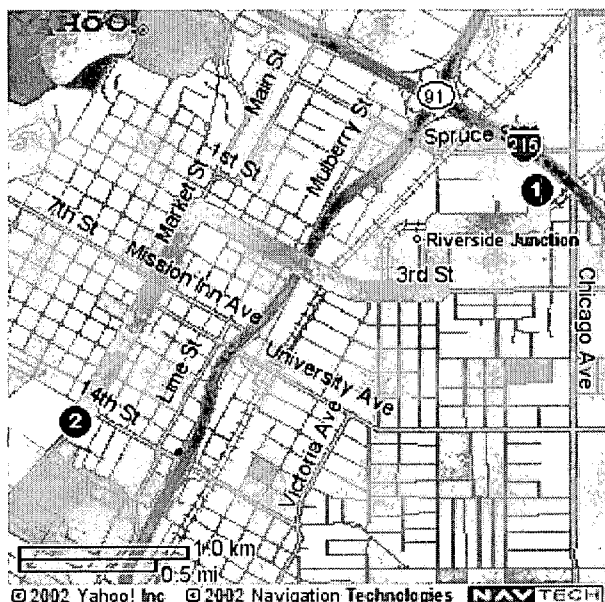
Distance: 2.6 miles

Approximate Travel Time: 6 mins

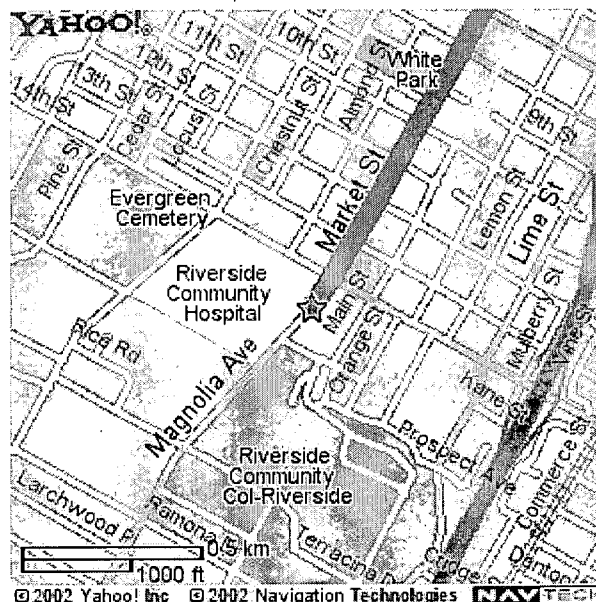
· [Email Directions](#)

· [Get Reverse Directions](#)

· [Text Only Driving Directio](#)



Full Route



Destination

Directions

1. Start on **DURAHART ST** going towards **MASSACHUSETTS AVE**
2. Turn Right on **MASSACHUSETTS AVE**
3. Turn Left on **KANSAS AVE**
4. Turn Right on **3RD ST**
5. Turn Left on **MARKET ST**
6. Continue on **MAGNOLIA AVE**
7. Arrive at destination

Miles

0.1
0.4
0.2
0.9
0.8
0.1

ATTACHMENT E

PID CALIBRATION INFORMATION

Cal EPA DTSC Health and Safety Calibration Data

Instrument: P50 Model: MMA PAE 2000

Reg ID: _____ S/N: 110-00-3619

Factory Service: 04/17/02

Operations Check : Date: 04/23/02 IH: DTM

Battery: NHM Flow: ✓

Calibration: 1 200 Air = 0 RL

Calibration: 2 100ppm TBE = 100 99.9 RL

Calibration: 3 _____

Comments: R. Zabanek

Brenton Safety
Helping People Work Safely Since 1942

242 Shaw Road, South San Francisco, CA 94080 Phone: (800) 733-4333 Fax: (800) 562-6252

REPAIR CERTIFICATE

#701688

COMPANY: DEPT. OF TOXIC SUBSTANCES CONTROL ACCOUNT# 125041-5
ATTN: DAVID MATSUMATO DATE 04/17/02
PHONE 714-484-5404 FAX 714-484-5383
MODEL: MINIRAE 2000 S/N 110-003619
PURCHASE ORDER # 01-T2288

BATT TEST	OK	MEMBRANE SWITCH FUNCTIONS	OK
BATT.TYPE	NIMH	CELLS FAIL	OK
DET.VOLTAGE	N/A	SHAKE TEST	OK
BUZZER	OK	OFF CURRENT DRAW	N/A
LIGHTS	OK	COURSE ZERO VOLTAGE SET	N/A
METER	OK	WINDOW	OK
SCREW PCB	OK	CHARGER SOCKET	OK
SCREW TOP	N/A	SCREWS BOTTOM	OK
SWITCH NUT	N/A	PUMP AIR FLOW	OK
CHARGER	OK	LOW BATT. ALARM POINT	OK
DATALOGGING	OK		

	PID
DATE CODE	013947
GAS TYPE	ISOBUTYLENE
CONCENTRATION	100PPM
MFG NORLAB	LOT#1-318-19
MAX SPAN	N/A
MIN SPAN	N/A
SPAN SET	100PPM
ALARM SET	25/50PPM
MAX ZERO	N/A
MIN ZERO	N/A
ZERO SET	0.00
CELL BIAS	N/A

TESTED.CLEANED AND CALIBRATED AS NEEDED
CAL.GAS USED: ZERO AIR AND 100 PPM ISOBUTYLENE

CALIBRATED BY:


LUIS MUNOZ

Certificate of Calibration

Model
PGM-7600

Part Number
011-0201100

Serial Number
110-003619

This instrument has been calibrated using calibration gases and procedures which are certified to traceable standards. Test and calibration data is on file with the manufacturer.

Calibration Date

04/23/2001

Production Manager

Alex Blakely

RAE Systems, Inc.



APPENDIX G

REPORT OF ANALYTICAL RESULTS

**Devoe Marine Coatings
2625 Durahart Street
Riverside, California 92502**

I. INTRODUCTION

In order to determine if a release of a hazardous substance occurred at Devoe Marine Coatings (Site), a field sampling program was planned and developed as part of the Preliminary Assessment (PA) for the Site. A "Field Sample Plan for Preliminary Assessment" (see Appendix F of the PA report) was developed. A Hazard Appraisal and Recognition Plan Pre-site Visit (HARP) Form was completed and approved by DTSC's Industrial Hygienist (IH) and project supervisor on April 24, 2002. The field sampling activities were then scheduled for April 30, 2002. We received oral permission to enter and collect samples from Robert Kovalak, the Director of Environmental Claims and Remediation of ICI Industries (Glidden - formerly known as Devoe Coatings), in early April 2002.

II. FIELD SAMPLING

Prior to conducting the sampling, an Authorization Request Form (ARF) for analyses of volatile organic compounds (VOCs) for groundwater and a metals scan for both soil and groundwater was submitted to DTSC's Hazardous Materials Laboratory (HML) for approval. An Authorization Number was assigned for this sampling event.

On April 30, 2002, a DTSC site team consisting of Greg Sweel, Rania Zabaneh, Al Shami, and Haissam Salloum collected 16 soil samples, and 4 groundwater samples. The sampling was performed in accordance with the Field Sampling Plan (Appendix F), with the following considerations:

- Twelve (12) soil samples were collected and analyzed for metals.
- Three (3) soil samples SB-1-0, SB-2-0, SB-3-0 were collected to establish background levels for metals.
- One (1) Soil sample SD-6-1 was collected as a field duplicate of sample SS-6-1.
- Two (2) groundwater samples were collected and analyzed for VOCs from MW-1 and MW-5.
- Two (2) groundwater samples were collected and analyzed for metals from MW-1 and MW-5.

Refer to table 7-1 and Figure 3-1 in Appendix F for a summary and depiction of where the samples were taken.

The Field Sampling Plan was followed without any deviations, except for the use of an XRF for screening soil.

Joseph Pagan, a former plant manager and retiree of Devoe Marine Coatings was present during the site sampling. Also present was Michael Berman, a project engineer with the consulting firm, The Source Group, to observe the groundwater monitoring wells' sample collection. Greg Sweel of DTSC carefully packed and mailed the 20 samples to HML in Berkeley for analyses on May 1, 2002. Hazardous Materials Sampling Analysis Request Forms (chain of custody forms) accompanied the shipment. After completion of field sampling activities, a Post HARP Document was completed to document no exposure symptoms of field personnel.

The DTSC team observed that the weather was sunny and mild, approximately 65 degrees Fahrenheit, and the winds were generally calm.

The ground at the site was found to be very dense and well compacted which made sample collection more time consuming than expected. Heavy equipment used to demolish the buildings is likely responsible for the noted soil conditions.

A photo-ionization detector (PID) was used to screen the groundwater monitoring wellhead for VOCs prior to measurements of depth to water. Results of the PID screening is located in Section 3.2.1 of this PA report.

No floating product or sheen was visible in the bailer during sample collection.

See Attachment A for the site-specific Site Health and Safety Plan.

III. ANALYTICAL RESULTS

Lead was detected in surface soil sample SS-3-0 with the highest reported concentration of 801 mg/kg. The one foot depth sample from the same location reported lead at a concentration of 94.5 mg/kg. The average background concentration for lead was determined to be 8.18 mg/Kg. Soil sample location SS-3-0 also reported the highest concentrations of total chromium (163 mg/Kg), copper (843 mg/Kg), and zinc (619 mg/Kg). The average background concentrations for these same metals were determined to be 12.84 mg/Kg, 11.98 mg/Kg, and 46.3 mg/Kg, respectively. The laboratory analytical data package, dated May 13, 2002, is included as part of this Appendix.

Total xylenes (includes ortho, para, and meta isomers) were detected at a concentration of 102,000 µg/l in MW-1. Total xylenes were not detected in MW-5 above laboratory quantitation limits (5 µg/l). No other VOC was reported by the laboratory above the applicable quantitation limits.

IV. CONCLUSION

The elevated lead, total chromium, copper, and zinc concentrations detected in sample SS-3-0 were located in approximately an area alleged to have been used sometime in the past as a pit for the improper disposal of waste paint. This particular sample was collected from the surface and a deeper sample (1 foot) from the same location reported lower concentrations of these same constituents. Generally, the other locations had concentrations similar to background levels. Soil conditions, as mentioned previously, prevented collection of deeper samples to verify the presence or absence of a disposal pit.

The detection of total xylene in MW-1 was somewhat expected since this constituent has historically been detected from this monitoring well. However, the reported concentration of 102,000 µg/l is over twice that reported in February 1999 (most recent available sampling data) of 46,000 µg/l.

California Environmental Protection Agency
Department of Toxic Substances Control
Office of Scientific Affairs

Hazardous Materials Laboratory

(Aquatic Park Facility)
2151 Berkeley Way
Berkeley, CA 94704

Ph. (510) 540-3101 (CALNET 571-3101)
FAX No. (510) 540-3615 (CALNET 571-3615)

Telecopy Cover Sheet

Date: 5/14/02

Please deliver ASAP to :

Greg Sweel

Phone No.:

714 - 484 - 5413

From:

Fatima Hussain

ph # 510 - 540 - 3609

No. of pages transmitted (including cover sheet):

8

Comments:

Results for HML # 011052 and
011054 will be faxed later.

HAZARDOUS MATERIALS LABORATORY SAMPLE TRACKING FORM

AUTHORIZATION NO.: HMR4721

SITE/LOCATION: Devoe Marine Coatings, Riverside

Date Assigned: 5/2/02

Date & Time Faxed: 5/14/02, 5/17/02

No	Sample I.D.	PL	Procedure Requested	DATE				Haz	Non Haz.
				Received	Ext/Dig	Analyzed	Reported		
1	011035	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
2	011036	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
3	011037	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
4	011038	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
5	011039	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
6	011040	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
7	011041	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
8	011042	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
9	011043	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
10	011044	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
11	011045	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
12	011046	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
13	011047	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
14	011048	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
15	011049	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
16	011050	1	S	5/2/02	5/6-5/8/02	5/9/02	5/13/02		✓
17	011052	1	S	5/2/02	5/6-5/7/02	5/13/02	5/13/02 ¹⁷		✓
18	011054	1	S	5/2/02	5/6-5/7/02	5/13/02	5/13/02 ¹⁷		✓
19									
20									

REMARKS:

ANALYST: Fatima Hussain

SIGNATURE: Fatima Hussain

TITLE: Public Health Chemist

DATE: 5/13/02, 5/17/02

HAZARDOUS MATERIALS LABORATORY SAMPLE TRACKING FORM

AUTHORIZATION NO.: HMR4721

SITE/LOCATION: Devoe Marine Coatings, Riverside

Date Assigned: 5/2/02

Date & Time Faxed: 5/14/02

No	Sample I.D.	PL	Procedure Requested	DATE				Haz	Non Haz.
				Received	Ext/Dig	Analyzed	Reported		
1	011035	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
2	011036	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
3	011037	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
4	011038	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
5	011039	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
6	011040	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
7	011041	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
8	011042	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
9	011043	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
10	011044	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
11	011045	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
12	011046	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
13	011047	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
14	011048	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
15	011049	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
16	011050	1	U	5/2/02		5/8-5/9/2002	5/13/02		✓
17									
18									
19									
20									

REMARKS:

ANALYST: Fatima Hussain

SIGNATURE: Fatima Hussain

TITLE: Public Health Chemist

DATE: 5/13/02

California Environmental Protection Agency
 Department of Toxic Substances Control
 Hazardous Materials Laboratory (Inorganic Section)
 2151 Berkeley Way, Berkeley, CA 94704

HML #: 011035 to
 011050

Phone: (510) 540-3003 or (ATSS) 571-3003

ANALYTICAL LABORATORY REPORT

Collector's Name: GREG SWEEL/SR.HSEG
 Site of Sampling: DEVOE MARINE COATINGS
 2625 DURAHART STREET
 RIVERSIDE 92507

Auth. No.: HMR4721
 Activity : SMB
 Date Collected: 04/30/02
 Date Received: 05/02/02

Analytical
 Procedure:
 EPA-SW 846

Samples are digested with 1:1 HNO₃ (and 30% H₂O₂, and 1:1 HCl, if applicable) over a hot plate. Digests are cooled, filtered and made to final volume with deionized H₂O. Metal analysis of the digests is by ICPAES (EPA #6010B). Units are mg/kg.

Method: 3050B for solids; 3010A for liquids; 3005A for clean water.

HML Number:	011035	011036	011037	011038	011039
Collector's					
Sample No.:	SS-1-0	SS-1-1	SS-2-0	SS-2-1	SS-3-0
Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
As-Arsenic	5.97	<5.00	5.00	<5.00	<5.00
Ba-Barium	59.0	64.2	69.5	212	467
Be-Beryllium	0.42	0.44	0.41	0.34	0.41
Cd-Cadmium	<0.50	<0.50	<0.50	0.78	1.61
Co-Cobalt	7.56	7.82	7.38	11.0	9.73
Cr-Chromium	12.6	13.0	11.6	48.7	163
Cu-Copper	15.9	17.7	13.1	132	843
Mo-Molybdenum	<5.00	<5.00	<5.00	<5.00	27.0
Ni-Nickel	10.5	10.5	10.0	7.98	8.18
Pb-Lead	9.91	10.4	9.05	234	801
Se-Selenium	<7.50	<7.50	<7.50	<7.50	<7.50
Tl-Thallium	<10.0	<10.0	<10.0	<10.0	<10.0
V-Vanadium	24.3	25.4	24.0	20.3	24.2
Zn-Zinc	51.5	54.1	46.4	275	619

Comments: < = below detection limit of method.

Merlyn de Guzman
 ICP Analyst

5/13/02
 Date

Fatima Hussain
 Chemist's Signature
 Fatima Hussain, Chemist

5/13/02
 Date

[Signature]
 Milad S. Iskander, Supervisor

5/13/02
 Date

[Signature]
5/13/02

California Environmental Protection Agency
 Department of Toxic Substances Control
 Hazardous Materials Laboratory (Inorganic Section)
 2151 Berkeley Way, Berkeley, CA 94704

HML #: 011035 to
 011050

hone: (510) 540-3003 or (ATSS) 571-3003

ANALYTICAL LABORATORY REPORT

Collector's Name: GREG SWEEL/SR.HSEG
 Site of Sampling: DEVOE MARINE COATINGS
 2625 DURAHART STREET
 RIVERSIDE 92507

Auth. No.: HMR4721
 Activity : SMB
 Date Collected: 04/30/02
 Date Received: 05/02/02

Analytical Procedure: EPA-SW 846
 Samples are digested with 1:1 HNO₃ (and 30% H₂O₂, and 1:1 HCl, if applicable) over a hot plate. Digests are cooled, filtered and made to final volume with deionized H₂O. Metal analysis of the digests is by ICPAES (EPA #6010B). Units are mg/kg.

Method: 3050B for solids; 3010A for liquids; 3005A for clean water.

HML Number:	011040	011041	011042	011043	011044
Collector's					
Sample No.:	SS-3-1	SS-4-0	SS-4-1	SS-5-0	SS-5-1
Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
As-Arsenic	<5.00	<5.00	<5.00	5.15	5.20
Ba-Barium	366	79.8	275	54.4	68.1
Be-Beryllium	0.43	0.36	0.41	0.41	0.40
Cd-Cadmium	1.77	0.54	1.47	<0.50	<0.50
Co-Cobalt	11.4	6.54	8.21	6.99	7.09
Cr-Chromium	26.3	12.7	41.5	13.4	13.8
Cu-Copper	57.0	41.5	205	12.7	11.7
Mo-Molybdenum	<5.00	<5.00	<5.00	<5.00	<5.00
Ni-Nickel	5.02	8.14	8.95	10.4	8.77
Pb-Lead	94.5	22.5	213	7.84	9.87
Se-Selenium	<7.50	<7.50	<7.50	<7.50	<7.50
Tl-Thallium	<10.0	<10.0	<10.0	<10.0	<10.0
V-Vanadium	38.5	23.7	25.4	24.9	23.8
Zn-Zinc	341	72.2	405	46.6	45.8

Comments: < = below detection limit of method.

Merlyn de Guzman
 ICP Analyst,
 Merlyn de Guzman

5/13/02
 Date

Fatima Hussain
 Chemist's Signature
 Fatima Hussain, Chemist

5/13/02
 Date

Milad S. Iskander
 Milad S. Iskander, Supervisor

5/13/02
 Date

Done (rev.) 5/13/02

California Environmental Protection Agency
 Department of Toxic Substances Control
 Hazardous Materials Laboratory (Inorganic Section)
 2151 Berkeley Way, Berkeley, CA 94704

HML #: 011035 to
 011050

Phone: (510) 540-3003 or (ATSS) 571-3003

ANALYTICAL LABORATORY REPORT

Collector's Name: GREG SWEEL/SR.HSEG
 Site of Sampling: DEVOE MARINE COATINGS
 2625 DURAHART STREET
 RIVERSIDE 92507

Auth. No.: HMR4721
 Activity : SMB
 Date Collected: 04/30/02
 Date Received: 05/02/02

Analytical Procedure: EPA-SW 846
 Samples are digested with 1:1 HNO₃ (and 30% H₂O₂, and 1:1 HCl, if applicable) over a hot plate. Digests are cooled, filtered and made to final volume with deionized H₂O. Metal analysis of the digests is by ICPAES (EPA #6010B). Units are mg/kg.

Method: 3050B for solids; 3010A for liquids; 3005A for clean water.

HML Number:	011045	011046	011047	011048	011049
Collector's					
Sample No.:	SS-6-0	SS-6-1	SD-6-1	SB-1-0	SB-2-0
Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL
As-Arsenic	5.20	5.10	<5.00	<5.00	<5.00
Ba-Barium	67.8	59.5	62.7	336	79.8
Be-Beryllium	0.45	0.44	0.39	0.47	0.25
Cd-Cadmium	0.53	0.79	<0.50	0.85	<0.50
Co-Cobalt	7.80	7.43	6.90	13.6	5.24
Cr-Chromium	13.6	12.2	11.9	19.8	5.42
Cu-Copper	18.3	36.2	21.5	16.5	6.13
Mo-Molybdenum	<5.00	<5.00	<5.00	<5.00	<5.00
Ni-Nickel	9.96	9.52	9.44	8.95	4.63
Pb-Lead	12.1	10.4	10.2	9.71	<5.00
Se-Selenium	<7.50	<7.50	<7.50	<7.50	<7.50
Tl-Thallium	<10.0	<10.0	<10.0	<10.0	<10.0
V-Vanadium	27.8	24.7	23.4	45.1	16.5
Zn-Zinc	52.5	60.0	52.8	53.1	37.0

Comments: < = below detection limit of method.

Merlyn de Guzman
 ICP Analyst,
 Merlyn de Guzman

5/13/02
 Date

Fatima Hussain
 Chemist's Signature
 Fatima Hussain, Chemist

5/13/02
 Date

Milad S. Iskander
 Milad S. Iskander, Supervisor

Date

5/13/02

California Environmental Protection Agency
Department of Toxic Substances Control
Hazardous Materials Laboratory (Inorganic Section)
2151 Berkeley Way, Berkeley, CA 94704

HML #: 011035 to
011050

Phone: (510) 540-3003 or (ATSS) 571-3003

ANALYTICAL LABORATORY REPORT

Collector's Name: GREG SWEEL/SR.HSEG
Site of Sampling: DEVOE MARINE COATINGS
2625 DURAHART STREET
RIVERSIDE 92507

Auth. No.: HMR4721
Activity : SMB
Date Collected: 04/30/02
Date Received: 05/02/02

Analytical Procedure: EPA-SW 846
Samples are digested with 1:1 HNO₃ (and 30% H₂O₂, and 1:1 HCl, if applicable) over a hot plate. Digests are cooled, filtered and made to final volume with deionized H₂O. Metal analysis of the digests is by ICPAES (EPA #6010B). Units are mg/kg.

Method: 3050B for solids; 3010A for liquids; 3005A for clean water.

HML Number: 011050
Collector's
Sample No.: SB-3-0
Sample Type: SOIL

As-Arsenic	5.17
Ba-Barium	61.8
Be-Beryllium	0.50
Cd-Cadmium	0.68
Co-Cobalt	8.24
Cr-Chromium	13.3
Cu-Copper	13.3
Mo-Molybdenum	<5.00
Ni-Nickel	10.6
Pb-Lead	9.82
Se-Selenium	<7.50
Tl-Thallium	<10.0
V-Vanadium	28.2
Zn-Zinc	48.8

Comments: < = below detection limit of method.

HA
CO
SR
SL

Merlyn de Guzman
ICP Analyst,
Merlyn de Guzman

5/13/02
Date

Fatima Hussain
Chemist's Signature
Fatima Hussain, Chemist

5/13/02
Date

Milad S. Iskander
Milad S. Iskander, Supervisor

5/13/02
Date

5/13/02
PB
S

Quality Assurance Summary for ICP

Element	HML Soil QC Sample			Method Blank	Calibration Verification Standard			Duplicate Spiked Sample			HML No.: 011038		Matrix: SOIL		
	mg/kg				mg/L	mg/L			Spike Results mg/kg			Unspiked Result (mg/kg)	Spike Added (mg/kg)	% Recovery	
	found	known	%			found	known	%	A:	B:	RPD			A:	B:
As-Arsenic	59.9	63.3	94.6	<0.10	9.81	10.0	98.1	467	467	0.00	<5.00	500	93.4	93.4	
Ba-Barium	42.5	44.7	95.1	<0.010	9.51	10.0	95.1	667	654	2.90	212	500	91.0	88.4	
Be-Beryllium	20.8	21.5	96.7	<0.005	1.96	2.00	98.0	99.0	99.8	0.81	0.34	100	98.7	99.5	
Cd-Cadmium	24.8	25.5	97.3	<0.010	10.4	10.0	104	473	473	0.00	0.78	500	94.4	94.4	
Co-Cobalt	20.9	20.7	101	<0.05	10.2	10.0	102	479	479	0.00	11.0	500	93.6	93.6	
Cr-Chromium	57.1	59.6	95.8	<0.08	10.0	10.0	100	502	510	1.75	48.7	500	90.7	92.3	
Cu-Copper	40.1	37.7	106	<0.10	8.88	10.0	88.8	592	590	0.44	132	500	92.0	91.6	
Mo-Molybdenum	28.0	30.3	92.4	<0.10	9.83	10.0	98.3	451	455	0.88	<5.00	500	90.2	91.0	
Ni-Nickel	35.5	35.4	100	<0.05	10.3	10.0	103	474	475	0.21	7.98	500	93.2	93.4	
Pb-Lead	30.6	31.0	98.7	<0.10	10.4	10.0	104	655	666	2.58	234	500	84.2	86.4	
Se-Selenium	56.3	72.8	77.3	<0.15	9.76	10.0	97.6	458	461	0.65	<7.50	500	91.6	92.2	
Tl-Thallium	111	125	88.8	<0.20	10.3	10.0	103	405	415	2.44	<10.0	500	81.0	83.0	
V-Vanadium	37.5	40.9	91.7	<0.06	9.54	10.0	95.4	469	469	0.00	20.3	500	89.7	89.7	
Zn-Zinc	44.0	46.3	95.0	<0.10	10.2	10.0	102	751	801	9.79	275	500	95.2	105	

Element	HML Liquid QC Sample			Reagent Blank	Inorganic Ventures Reference Standard			Duplicate Spiked Sample			HML No.: 011049		Matrix: SOIL		
	mg/kg				mg/L	mg/L			Spike Results mg/kg			Unspiked Result (mg/kg)	Spike Added (mg/kg)	% Recovery	
	found	known	%			found	known	%	A:	B:	RPD			A:	B:
As-Arsenic	2.47	2.63	93.9	<0.10	1.00	1.00	100	452	451	0.22	<5.00	500	90.4	90.2	
Ba-Barium	9.44	9.92	95.2	<0.010	0.96	1.00	96.0	529	526	0.67	79.8	500	89.8	89.2	
Be-Beryllium	2.91	2.97	98.0	<0.005	0.20	0.20	100	97.3	97.5	0.21	0.25	100	97.0	97.2	
Cd-Cadmium	3.06	3.10	98.7	<0.010	1.02	1.00	102	477	479	0.42	<0.50	500	95.4	95.8	
Co-Cobalt	2.83	2.66	106	<0.05	0.99	1.00	99.0	474	476	0.43	5.24	500	93.8	94.2	
Cr-Chromium	14.8	15.0	98.7	<0.08	0.99	1.00	99.0	471	472	0.21	5.42	500	93.1	93.3	
Cu-Copper	67.9	66.1	103	<0.10	0.92	1.00	92.0	438	442	0.92	6.13	500	86.4	87.2	
Mo-Molybdenum	6.39	6.36	100	<0.10	1.00	1.00	100	446	450	0.89	<5.00	500	89.2	90.0	
Ni-Nickel	11.8	11.7	101	<0.05	1.00	1.00	100	472	475	0.64	4.63	500	93.5	94.1	
Pb-Lead	6.35	6.18	103	<0.10	1.02	1.00	102	474	477	0.63	<5.00	500	94.8	95.4	
Se-Selenium	14.0	14.1	99.3	<0.15	1.00	1.00	100	446	449	0.67	<7.50	500	89.2	89.8	
Tl-Thallium	33.2	34.5	96.2	<0.20	1.01	1.00	101	401	407	1.49	<10.0	500	80.2	81.4	
V-Vanadium	2.22	2.33	95.3	<0.06	0.95	1.00	95.0	459	459	0.00	16.5	500	88.5	88.5	
Zn-Zinc	25.0	24.4	102	<0.10	1.01	1.00	101	504	512	1.70	37.0	500	93.4	95.0	

ICP Analyst's Signature: Fatima Hussain
Chemist: Fatima Hussain
Date Analyzed: 05/09/02

Milad S. Iskander, Supervisor

Date: 5/13/02

California Environmental Protection Agency
 Department of Toxic Substances Control
 Hazardous Materials Laboratory (Inorganic Section)
 2151 Berkeley Way, Berkeley, CA 94704

HML 011052-011054

ANALYTICAL LABORATORY REPORT

Phone: (510) 540-3003 or (ATSS) 571 - 3003

Collector's Name: Greg Sweel Auth. No.: HMR 4721
 Site of Sampling: Devoe M. Coatings, Activity: SMB
 Date Collected: 4/30/02 Date Received: 5/2/02

Analytical Procedure: Samples are digested with conc. HNO_3 in a Hot Block. Digests are cooled, filtered and made to final volume with deionized H_2O . Metal analysis of the digests is by ICPMS.

EPA Method 6020A for Water, Liquids and Soils (Drinking Water Standards) (Units ug/L)

HML Number:	HML 011052	HML 011054			
Col. Sample No.:	MW-1-M	MW-5-M			
Sample Type:	Water	Water			
Analyte					
Be-Beryllium	<0.50	<0.50			
Al-Aluminum	<5.00	251			
Cr-Chromium	198	184			
Fe-Iron	19500	6620			
Mn-Manganese	2460	1480			
Ni-Nickel	1950	3735			
Cu-Copper	0.83	9.92			
Zn-Zinc	4.18	5.76			
As-Arsenic	2.39	3.00			
Se-Selenium	2.24	9.47			
Ag-Silver	0.12	0.15			
Cd-Cadmium	<0.20	<0.20			
Sb-Antimony	0.13	0.36			
Ba-Barium	82.5	156			
Tl-Thallium	< 0.10	< 0.10			
Pb-Lead	0.18	0.31			

Notes:<= below detection limit of method

Grurmail S. Sivia 5/17/02
 ICP MS Analyst, Date
 Grurmail S Sivia

Fatima Hussain 5/17/02
 Chemist's Signature Date
 Fatima Hussain

Grurmail S. Sivia 5/17/02
 Supervisor Date
 Milad S. Iskander

ms (Rev.) 5/18/02

California Environmental Protection Agency

Department of Toxic Substances Control
Hazardous Materials Laboratory (Inorganic Section)
2151 Berkeley Way, Berkeley, CA 94704

HML 011052-011054

Quality Assurance Summary For ICP-MS (Units ug/L)

ELEMENT	Reagent	Method	ICV			CCV			Reference Std			HML 011052						
	Blank	Blank	Found	Known	%	Found	Known	%	Found	Known	%	SPK Results			UNSPK	Spk add.	% Recovery	
												A	B	RPD			%A	%B
Be-Beryllium	<0.50	<0.50	5.30	5.00	106	52.0	50.0	104	11.8	12.5	94.2	42.0	42.8	1.89	<0.50	50.0	84.0	85.0
Al-Aluminum	<5.00	<5.00				49.7	50.0	99.4	131	128	103	94.2	93.7	0.53	<5.00	100	94.2	93.7
Cr-Chromium	<0.50	<0.50	4.88	5.00	97.6	45.8	50.0	91.6	19.4	18.5	105	254	242	24.0	198	50.0	112	88.0
Fe-Iron	<5.00	<5.00				43.3	50.0	86.6	114	91.2	125	23700	23800	1.18	19500	5000	84.0	86.0
Mn-Manganese	< 0.10	0.31	4.99	5.00	99.8	48.5	50.0	97.0	39.2	37.7	104	7680	7420	4.72	2460	5000	104	99.2
Ni-Nickel	<0.50	<0.50	5.06	5.00	101	45.8	50.0	91.6	60.8	58.1	105	4170	4140	1.36	1950	2500	88.8	87.6
Cu-Copper	<0.50	<0.50	4.98	5.00	99.6	44.0	50.0	88.0	20.7	20.5	101	39.2	38.6	1.58	0.83	50.0	76.7	75.5
Zn-Zinc	<1.00	<1.00	4.70	5.00	94.0	54.6	50.0	109	75.4	72.5	104	57.2	47.1	21.1	4.18	50.0	106	85.8
As-Arsenic	<0.50	<0.50	5.22	5.00	104	52.7	50.0	105	59.7	56.0	107	51.7	54.8	6.29	2.39	50.0	98.6	105
Se-Selenium	<0.50	<0.50	4.85	5.00	97.0	59.5	50.0	119	12.9	11.4	113	48.6	57.0	17.1	2.25	50.0	92.7	110
Ag-Silver	0.25	0.18	5.24	5.00	105	53.1	50.0	106	1.77	1.27	139	27.7	28.3	2.07	0.12	50.0	55.2	56.4
Cd-Cadmium	<0.20	<0.20	5.15	5.00	103	52.5	50.0	105	6.63	6.47	102	51.2	51.7	0.98	<0.20	50.0	102	103
Sb-Antimony	< 0.10	< 0.10	5.07	5.00	101	50.2	50.0	100	59.0	54.1	109	52.4	53.5	1.89	0.13	50.0	105	107
Ba-Barium	< 0.10	< 0.10	4.97	5.00	99.4	49.9	50.0	99.8	529	507	104	179	178	1.04	82.5	100	96.5	95.5
Tl-Thallium	< 0.10	< 0.10	4.79	5.00	95.8	46.2	50.0	92.4	7.52	7.28	103	44.4	44.0	0.91	<0.10	50.0	88.8	88.0
Pb-Lead	< 0.10	< 0.10	4.95	5.00	99.0	46.4	50.0	92.8	18.7	18.2	103	44.4	44.0	0.91	0.17	50.0	88.5	87.7

Notes: <= below detection limit of the method

ICV : Initial Calibration Verification Standard
CCV : Continous Calibration Verification Standard

Gurmail S. Sivia
ICP MS Analys Date

Gurmail S. Sivia

Fatima Hussain
Chemist's Signature
Fatima Hussain

5/17/02
Date

Milad S. Iskander
Supervisor Date
Milad S. Iskander 5/17/02

California Department of Toxic Substances Control
Hazardous Materials Laboratory
2151 Berkeley Way, Berkeley, CA 94704

HML #: 011035
to: 011050

Phone: (510) 540-3003 or (ATSS) 571-3003

Collector's Name: Greg Sweel
Site or Location: Devoe Marine Coatings
2625 Durahart Street
Riverside 92507

Auth. No.: HMR4721
Activity: SMB
Date Collected: 4/30/02
Date Received: 5/2/02

Procedure: About 10 grams of a well-mixed sample is weighed on a tared container using a top loading balance capable of weighing to nearest 0.01 gram. Sample is dried in an oven at 105 deg. C for 12 to 24 hours and cooled in a dessicator for 30 minutes. Sample is reweighed to determine the weight of the dry solids remaining.

Reference: HML Method No. 704-S

HML Number:	Collector's Number:	Sample Type	% Dry Solids
011035	SS-1-0	soil	98.5
011036	SS-1-1	soil	98.2
011037	SS-2-0	soil	97.5
011038	SS-2-1	soil	96.0
011039	SS-3-0	soil	98.0
011040	SS-3-1	soil	97.8
011041	SS-4-0	soil	98.4
011042	SS-4-1	soil	96.8
011043	SS-5-0	soil	98.4
011044	SS-5-1	soil	96.7
011045	SS-6-0	soil	97.3
011046	SS-6-1	soil	96.5
011047	SD-6-1	soil	96.5
011048	SB-1-0	soil	97.4
011049	SB-2-0	soil	98.7
011050	SB-3-0	soil	98.0

Signatures:

Fatima Hussain
Fatima Hussain
Chemist

5/7-5/8/02
Date

Milad S. Iskander
Milad S. Iskander
Supervisor

5/13/02
Date

mel crw.) 5/13/02

HML #: 011035
to: 011050

[illegible]

Date performed		Wt.before drying	Wt.after drying	diff.	Date performed
5/7/02	Blank	1.54	1.54	0.00	5/8/02
Time: .	2.0 gm	2.00	2.00	0.00	Time:
2:15 p.m.	5.0 gm	5.00	5.00	0.00	8:00 a.m.
	10.0 gm	10.00	10.00	0.00	

HML	Sample	Duplicate	
Number	result	Result	% RPD
011049	98.7	98.7	0.00

Fatima Hussain
Fatima Hussain

5/8⁷ - 5/8/02^{7H}
Date

Д-П

HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST			1. Authorization Number			HML No. <u>011035</u>		2. Page															
			H M R 4 7 2 1			To <u>011054</u>		2 of 3															
3. Requestor: <u>GREG SWEEL</u>			4. Phone (714) <u>484-5413</u>			7. TAT Level: ① <u>John Wilson</u> (circle one) Authorized By																	
5. Address (To Receive Results): <u>5796 CORPORATE AVENUE CYPRESS, CA 90630</u>			6. FAX ()			2 3 4																	
8. Date Sampled <u>APRIL 30, 2002</u>						9. Codes (fill in all applicable codes)																	
10. Activity: <input type="checkbox"/> SCD <input type="checkbox"/> SRPD <input checked="" type="checkbox"/> SMB <input type="checkbox"/> FPB <input type="checkbox"/> SPPT <input type="checkbox"/> ER/CL <input type="checkbox"/> Others						a. Office <table border="1" style="display: inline-table; text-align: center;"><tr><td>0</td><td>4</td></tr></table>				0	4												
						0	4																
						b. INDEX <table border="1" style="display: inline-table; text-align: center;"><tr><td>5</td><td>3</td><td>1</td><td>0</td></tr></table>				5	3	1	0										
						5	3	1	0														
						c. PCA <table border="1" style="display: inline-table; text-align: center;"><tr><td>1</td><td>4</td><td>8</td><td>1</td><td>5</td></tr></table>				1	4	8	1	5									
1	4	8	1	5																			
d. MPC <table border="1" style="display: inline-table; text-align: center;"><tr><td></td><td></td><td></td><td></td></tr></table>																							
e. SITE <table border="1" style="display: inline-table; text-align: center;"><tr><td>4</td><td>0</td><td>0</td><td>9</td><td>7</td><td>6</td><td>2</td><td>6</td></tr></table>				4	0	0	9	7	6	2	6												
4	0	0	9	7	6	2	6																
11. SAMPLING LOCATION <table border="1" style="display: inline-table; text-align: center;"><tr><td>C</td><td>A</td><td>D</td><td>O</td><td>9</td><td>7</td><td>5</td><td>7</td><td>4</td><td>0</td><td>7</td><td>3</td></tr></table>						C	A	D	O	9	7	5	7	4	0	7	3	f. County <table border="1" style="display: inline-table; text-align: center;"><tr><td>3</td><td>3</td></tr></table>				3	3
C	A	D	O	9	7	5	7	4	0	7	3												
3	3																						
a. EPA ID No.																							
b. Site <u>DEVOE MARINE COATINGS</u>																							
c. Address <u>2625 DURAHART STREET RIVERSIDE 92507</u>																							
Number Street City ZIP																							
12. SAMPLES																							
a. ID		b. Collector's No.		c. Lab No.		Sample d. Type		Container e. Type f. Size		g. Field Information													
A		S 5-5-10		011043		SOIL		GLASS 402															
B		S 5-5-11		011044		"		"															
C		S 5-6-10		011045		"		"															
D		S 5-6-11		011046		"		"															
E		S 10-6-11		011047		"		"															
F		S 18-1-10		011048		"		"															
G		S 18-2-10		011049		"		"															
H		S 18-13-10		011050		"		"															
13. ANALYSIS REQUESTED																							
a. <input type="checkbox"/> pH			f. <input type="checkbox"/> PAHs - 8310			i. <input type="checkbox"/> OP - Pest																	
b. <input checked="" type="checkbox"/> Metal Scan <u>A-H</u>			g. <input type="checkbox"/> PCBs			m. <input type="checkbox"/> VOA - 8021																	
c. <input type="checkbox"/> Metals (Spec)			h. <input type="checkbox"/> TPH			n. <input type="checkbox"/> VOA - 8260																	
d. <input type="checkbox"/> W.E.T.			i. <input type="checkbox"/> Gasoline			o. <input type="checkbox"/> SVO - 8270																	
e. <input type="checkbox"/> Flash Point			j. <input type="checkbox"/> Diesel			p. <input type="checkbox"/> TCLP - (specify)																	
			k. <input type="checkbox"/> CI - Pest			q. <input type="checkbox"/>																	
14. SPECIAL REMARKS/ANALYSIS OBJECTIVE: <u>LOW LEVEL (RESIDENTIAL PRELIMINARY REMEDIATION GOALS)</u>																							
15. SUPPLEMENTAL REQUESTS <input type="checkbox"/>						Initials _____																	
<input type="checkbox"/>						Date _____																	
16. CHAIN OF CUSTODY																							
a. <u>Greg Sweel</u> Signature		<u>GREG SWEEL / Sr. HSEG</u> Name/Title		<u>04/30/02 - 05/01/02</u> Inclusive Dates																			
b. <u>Terana Hannon</u> Signature		<u>Terana Hannon / Lab Tech</u> Name/Title		<u>05/02/02</u> Inclusive Dates																			
c. _____ Signature		_____ Name/Title		<u>1 / 1 - 1 / 1</u> Inclusive Dates																			
d. _____ Signature		_____ Name/Title		<u>1 / 1 - 1 / 1</u> Inclusive Dates																			
17. LAB REMARKS:																							

HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST		1. Authorization Number	HML No. 011035	2. Page		
		H M R 4 7 2 1	To 011054	3 of 3		
3. Requestor: GREG SWEEL		4. Phone (714) 484-5413		7. TAT Level: ① (circle one) <i>[Signature]</i> Authorized By		
5. Address (To Receive Results): 5796 CORPORATE AVENUE, CA 90630		6. FAX (714) 484-5438		2 3 4		
8. Date Sampled APRIL 30, 2002		9. Codes (fill in all applicable codes)				
10. Activity: <input type="checkbox"/> SCD <input type="checkbox"/> SRPD <input checked="" type="checkbox"/> SMB <input type="checkbox"/> FPB <input type="checkbox"/> SPPT <input type="checkbox"/> ER/CL <input type="checkbox"/> Others		a. Office 04				
11. SAMPLING LOCATION C A D 0 9 7 5 7 4 0 7 3		b. INDEX 5 3 1 0				
a. EPA ID No.		c. PCA 1 4 8 1 5				
b. Site DEVOE MARINE COATINGS		d. MPC				
c. Address 2625 DURAHART STREET RIVERSIDE 92507		e. SITE 4 0 0 9 7 6 - 2 6				
Number Street City ZIP		f. County 3 3				
12. SAMPLES						
a. ID	b. Collector's No.	c. Lab No.	d. Type	e. Type	f. Size	g. Field Information
A	M W - 1 - 1 - V	011051	GROUNDWATER	GLASS	2 x 40ml	
B	M W - 1 - 1 - M	011052	"	PLASTIC	1 liter	
C	M W - 1 - 5 - V	011053	"	GLASS	2 x 40ml	
D	M W - 1 - 5 - M	011054	"	PLASTIC	1 liter	
E						
F						
G						
H						
13. ANALYSIS REQUESTED					f. <input type="checkbox"/> PAHs - 8310	
a. <input type="checkbox"/> pH					i. <input type="checkbox"/> OP - Pest	
b. <input checked="" type="checkbox"/> Metal Scan B, D					m. <input type="checkbox"/> VOA - 8021	
c. <input type="checkbox"/> Metals (Spec)					n. <input checked="" type="checkbox"/> VOA - 8260 A, C	
d. <input type="checkbox"/> W.E.T.					o. <input type="checkbox"/> SVO - 8270	
e. <input type="checkbox"/> Flash Point					p. <input type="checkbox"/> TCLP - (specify)	
k. <input type="checkbox"/> CI - Pest					q. <input type="checkbox"/>	
14. SPECIAL REMARKS/ANALYSIS OBJECTIVE: DRINKING WATER (MAXIMUM CONTAMINANT LEVELS)						
15. SUPPLEMENTAL REQUESTS						
16. CHAIN OF CUSTODY						
a. <i>[Signature]</i> Signature		GREG SWEEL / SR, HSEG Name/Title		04/30/02 - 05/01/02 Inclusive Dates		
b. <i>[Signature]</i> Signature		Terana Hannon / Lab Asst Name/Title		05/02/02 - / / Inclusive Dates		
c. Signature		Name/Title		/ / - / / Inclusive Dates		
d. Signature		Name/Title		/ / - / / Inclusive Dates		
17. LAB REMARKS:						

AUTHORIZATION REQUEST FORM (ARF)

PART A : (By Requestor - PLEASE PRINT)

TAT Level :

(check one)

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*1	2	3	4

Requestor's Name Greg Sweel
 Region/Unit Cypress/SMCOB
 BACK-UP REQUESTOR Rania Zabaneh
 SITE: Devoe Marine Coatings

Phone (714) 484-5413
 FAX (714) 484-5438
 Phone (714) 484-5479

AREA CODE

PART B: Analytical Requests

(By Requestor)

(Lab uses default methods listed below. ALL other requests please specify)

Inorganic Analysis	Number of Samples/Type			
	Solid	Liquid	Water	Other
pH				
Metals Scan (6010)	20		2	
Metal(s) Specific: <input type="text"/>				
WET				
Cyanides				
(others, write in)				
(others, write in)				
TCLP Analysis ** <input type="checkbox"/>				
(see footnotes) (only if necessary) (do TCLP regardless)				
Metals				
Mercury				
Volatiles				
Semivolatiles				
(others, write in)				

Organic Analysis	Number of Samples/Type			
	Solid	Liquid	Water	Other
CL-Pest (8081)				
OP-Pest (8141)				
PCBs (8082)				
G R O (8015B)				
D R O / Motor Oil / Both				
n-Hexane Extractables (1664)				
Flash Point (1020)				
VOCs including BTEX (8260)			2	
VOCs - LO Level (5035)				
VOCs - HI Level (5035)				
SVOCs (8270)				
PAHs (8270) HCLP				
(others, write in)				
(others, write in)				

Analysis Objective: ☒ Drinking H₂O Standards (applies to DW only) ☐ Treatment Standards (specify analytes & level aimed)
 (check box) ☐ Waste Characterization ☒ Others (contact Lab supervisors if needed)

Detection Limit Requirements: (must be shown on SAR also) Site Characterization

(specify & contact Lab supervisors)

Soil: Low Level - Residential Preliminary Remediation Goals

Expected Date of Sample Arrival at Lab

0 5 0 1 0 2

PART C : (By STO - HML)

Authorization Number (AN)

H M R 4 7 2 1

Lab to Receive Sample(s)

Name: Hazardous Materials Lab
 Address: 700 Heinz St., Ste. 150
 Berkeley, CA 94710

ARF's

Revision No.

Sample Tracking Officer (STO)

J. Garacha

Check box if cancelled

Today's Date:

0 4 2 9 0 2

Expiration Date

0 5 0 8 0 2

TAT Level : *1 = 10-15 days (requires unit chief's signature on SAR) 2 = 16 - 30 days 3 = 31 - 45 days 4 = when possible

*TCLP : If time permits and/or sample matrix type is appropriate Lab may perform a TCLP or screening test on the sample(s) first to determine if TCLP is needed.

*AHs by 8310 (LC) and BTEX by 8021 (GC/PID) may produce lower QLs for some matrices. (See HML user's manual for QL comparisons)

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Authorization number: HMR 4721

Hazardous Materials Laboratory

HML Sample Numbers: 011051

2151 Berkeley Way, Berkeley, California 94704

GC/MS LABORATORY REPORT (page 1 of 10)

COLLECTOR'S NAME: <u>Greg Sweet</u>	Date Sampled: <u>4/30/2002</u>
SAMPLING SITE: <u>Devco Marine Coatings</u>	Date Received at HML: <u>5/2/2002</u>
<u>2625 Durahart Street, Riverside 92507</u>	
TEST: GCMS Purge-and-Trap Volatile Organic Analysis	Priority: <u>1</u>
ANALYTICAL PROCEDURE: The volatile organic compounds are introduced into a J&W DB-624, 60M, 1.4 microns x 0.25mm I.D. capillary column GC/MS system with a purge-and-trap apparatus. Water samples are purged directly. Solid sample and oil sludge samples are extracted with methanol. An aliquot of the methanol extract is diluted to volume and introduced into the purge-and-trap vessel for purge-and-trap GCMS analysis. Electron impact, full scan mass spectrometry is used for the analysis of eluents.	Date GC/MS Analysis Requested: <u>4/26/2002</u> Date Received at GC/MS Lab: <u>5/3/2002</u> Date(s) of GC/MS Analysis: <u>5/7-8/2002</u> GC/MS Analysts: <u>Orlando Garbin</u>
GC/MS Method Reference: EPA Method 8260 GC/MS Volatile Organic Analysis	

GC/MS VOLATILE ORGANIC ANALYSIS - EPA METHOD 8260

CAS NUMBER	VOLATILE ORGANIC ANALYTES	HML#	011051	Method Blank	Quantitation Limit
		COLLECTOR'S#	MW-1-V		
		MATRIX	groundwater		
		UNITS	microgram/L		
67-64-1	acetone		ND	ND	10,000
71-43-2	benzene		ND	ND	5,000
108-86-1	bromobenzene		ND	ND	5,000
74-97-5	bromochloromethane		ND	ND	5,000
75-27-4	bromodichloromethane		ND	ND	5,000
75-25-2	bromoform		ND	ND	5,000
74-83-9	bromomethane		ND	ND	5,000
104-51-8	n-butylbenzene		ND	ND	5,000
135-98-8	sec-butylbenzene		ND	ND	5,000
98-06-6	tert-butylbenzene		ND	ND	5,000
56-23-5	carbon tetrachloride		ND	ND	5,000
108-90-7	chlorobenzene		ND	ND	5,000
124-48-1	chlorodibromomethane		ND	ND	5,000
75-00-3	chloroethane		ND	ND	5,000
67-66-3	chloroform		ND	ND	5,000
74-87-3	chloromethane		ND	ND	5,000
95-94-8	2-chlorotoluene		ND	ND	5,000
106-43-4	4-chlorotoluene		ND	ND	5,000
96-12-8	1,2-dibromo-3-chloropropane		ND	ND	5,000
106-93-4	1,2-dibromoethane		ND	ND	5,000

Note: ND = Not Detected; NA = Not Analyzed; D = Detected below quantitation limit

Analyst: Supervisor: 

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

HAZARDOUS MATERIALS LABORATORY

2151 BERKELEY WAY, BERKELEY, CALIFORNIA 94704

GC/MS Laboratory Report (page 2 of 10)

Authorization number: HMR4721

HML Sample Numbers: 011051

COLLECTOR'S NAME:

Greg Sweel

SAMPLING SITE:

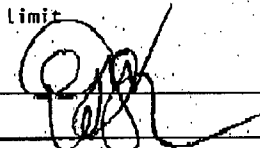
Devoe Marine Coatings

2625 Durahart Street, Riverside 92507

GC/MS VOLATILE ORGANIC ANALYTES - EPA METHOD 8260

CAS NUMBER	VOLATILE ORGANIC ANALYTES	HML#	011051	Method Blank	Quantitation Limit
		COLLECTOR'S	MW-1-V		
		MATRIX	groundwater		
		UNITS	microgram/L		
74-95-3	dibromomethane		ND	ND	5,000
95-50-1	1,2-dichlorobenzene		ND	ND	5,000
541-73-1	1,3-dichlorobenzene		ND	ND	5,000
106-46-7	1,4-dichlorobenzene		ND	ND	5,000
75-71-8	dichlorodifluoromethane		ND	ND	5,000
75-34-3	1,1-dichloroethane		ND	ND	5,000
107-06-2	1,2-dichloroethane		ND	ND	5,000
75-35-4	1,1-dichloroethene		ND	ND	5,000
156-60-5	trans-1,2-dichloroethene		ND	ND	5,000
156-59-2	cis-1,2-dichloroethene		ND	ND	5,000
78-87-5	1,2-dichloropropane		ND	ND	5,000
142-28-9	1,3-dichloropropane		ND	ND	5,000
594-20-7	2,2-dichloropropane		ND	ND	5,000
563-58-6	1,1-dichloropropene		ND	ND	5,000
10061-01-5	cis-1,3-dichloropropene		ND	ND	5,000
10061-02-6	trans-1,3-dichloropropene		ND	ND	5,000
100-41-4	ethylbenzene		ND	ND	5,000
87-68-3	hexachloro-1,3-butadiene		ND	ND	5,000
591-78-6	2-hexanone		ND	ND	5,000
98-82-8	isopropylbenzene		ND	ND	5,000
99-87-6	p-isopropyltoluene		ND	ND	5,000
78-93-3	methylethyl ketone (2-butanone)		ND	ND	5,000
108-10-1	4-methyl-2-pentanone		ND	ND	5,000
75-09-2	methylene chloride		ND	ND	5,000
91-20-3	naphthalene		ND	ND	5,000

Note: ND = Not Detected; NA = Not Analyzed; D = Detected below quantitation limit

Analyst: Supervisor: 

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

HAZARDOUS MATERIALS LABORATORY

2151 BERKELEY WAY, BERKELEY, CALIFORNIA 94704

GC/MS Laboratory Report (page 3 of 10)

Authorization number: 011051

HML Sample Numbers: HMR4721

COLLECTOR'S NAME:

Greg Sweet

SAMPLING SITE:

Devco Marine Coatings

2625 Durahart Street, Riverside 92507

GC/MS VOLATILE ORGANIC ANALYTES - EPA METHOD 8260

CAS NUMBER	VOLATILE ORGANIC ANALYTES	HML#	011051	Method Blank	Quantitation Limit
		COLLECTOR'S	MW-1-V		
		MATRIX	groundwater		
		UNITS	microgram/L		
103-65-1	n-propylbenzene		ND	ND	5,000
100-42-5	styrene		ND	ND	5,000
630-20-6	1,1,1,2-tetrachloroethane		ND	ND	5,000
79-34-5	1,1,2,2-tetrachloroethane		ND	ND	5,000
127-18-4	tetrachloroethane (perchloroethylene)		ND	ND	5,000
108-88-3	toluene		ND	ND	5,000
87-61-6	1,2,3-trichlorobenzene		ND	ND	5,000
120-82-1	1,2,4-trichlorobenzene		ND	ND	5,000
71-55-6	1,1,1-trichloroethane		ND	ND	5,000
79-00-5	1,1,2-trichloroethane		ND	ND	5,000
79-01-6	trichloroethane (trichloroethylene)		ND	ND	5,000
75-69-4	trichlorofluoromethane		ND	ND	10,000
96-18-4	1,2,3-trichloropropane		ND	ND	5,000
95-63-6	1,2,4-trimethylbenzene		ND	ND	5,000
108-67-8	1,3,5-trimethylbenzene		ND	ND	5,000
75-01-4	vinyl chloride		ND	ND	5,000
95-47-6	o-xylene		22,000	ND	5,000
108-38-3	(m & p)-xylenes		80,000	ND	5,000
1634-04-4	tert-butyl methyl ether (MTBE)		ND	ND	5,000

Note: ND = Not Detected; NA = Not Analyzed; D = Detected below quantitation limit
 QL = quantitation limit = concentration of lowest standard x sample dilution factor
 µg/L = microgram per liter; ug/L = milligram per liter; gram/L = gram per liter
 ug/Kg = milligram per kilogram

Comment(s):

Collector requested "Low-Level VOC" analysis of sample 011051. However due to the high level of xylenes present, low level analysis is inappropriate. This groundwater sample was diluted with water prior to GCMS VOC analysis.

GC/MS Analyst(s): Orlando Garbin

Signature:

Report Date: 5/20/2002

Reviewer: William Lum

Signature:

Review Date: 5/20/2002

Supervisor: William Lum

Signature:

Date: 5/21/2002

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Authorization number: HMR4721HML Sample Numbers: 011053

Hazardous Materials Laboratory

2151 Berkeley Way, Berkeley, California 94704

GC/MS LABORATORY REPORT (page 4 of 10)

COLLECTOR'S NAME: <u>Greg Smeal</u>	Date Sampled: <u>4/30/2002</u>
SAMPLING SITE: <u>Devco Marine Coatings</u>	Date Received at HML: <u>5/2/2002</u>
<u>2625 Durahart Street, Riverside 92507</u>	
TEST: GCMS Purge-and-Trap Volatile Organic Analysis	Priority: <u>1</u>
ANALYTICAL PROCEDURE: The volatile organic compounds are introduced into a J&W DB-624, 60M, 1.4 micron x 0.25mm I.D. capillary column GC/MS system with a purge-and-trap apparatus. Water samples are purged directly. Solid sample and oil sludge samples are extracted with methanol. An aliquot of the methanol extract is diluted to volume and introduced into the purge-and-trap vessel for purge-and-trap GCMS analysis. Electron impact, full scan mass spectrometry is used for the analysis of eluents.	Date GC/MS Analysis Requested: <u>4/26/2002</u> Date Received at GC/MS Lab: <u>5/3/2002</u> Date(s) of GC/MS Analysis: <u>5/7-8/2002</u> GC/MS Analysts: <u>Orlando Garbin</u>
GC/MS Method Reference: EPA Method 8260 GC/MS Volatile Organic Analysis	

GC/MS VOLATILE ORGANIC ANALYSIS - EPA METHOD 8260

CAS NUMBER	VOLATILE ORGANIC ANALYTES	HML#	011053	Storage blank	Method Blank	Quantitation Limit
		COLLECTOR'S#	MW-5-V	---		
		MATRIX	groundwater	water		
		UNITS	microgram/L	microgram/L		
67-64-1	acetone		ND	ND	ND	10
71-43-2	benzene		ND	ND	ND	5.0
108-86-1	bromobenzene		ND	ND	ND	5.0
74-97-5	bromochloromethane		ND	ND	ND	5.0
75-27-4	bromodichloromethane		ND	ND	ND	5.0
75-25-2	bromoform		ND	ND	ND	5.0
74-83-9	bromomethane		ND	ND	ND	5.0
106-51-8	n-butylbenzene		ND	ND	ND	5.0
135-98-8	sec-butylbenzene		ND	ND	ND	5.0
98-06-6	tert-butylbenzene		ND	ND	ND	5.0
56-23-5	carbon tetrachloride		ND	ND	ND	5.0
108-90-7	chlorobenzene		ND	ND	ND	5.0
124-48-1	chlorodibromomethane		ND	ND	ND	5.0
75-00-3	chloroethane		ND	ND	ND	5.0
67-66-3	chloroform		ND	ND	ND	10
74-87-3	chloromethane		ND	ND	ND	5.0
95-94-8	2-chlorotoluene		ND	ND	ND	5.0
106-43-4	4-chlorotoluene		ND	ND	ND	5.0
96-12-8	1,2-dibromo-3-chloropropane		ND	ND	ND	10
106-93-4	1,2-dibromoethane		ND	ND	ND	5.0

Note: ND = Not Detected; NA = Not Analyzed; D = Detected below quantitation limit

Analyst: [Signature]Supervisor: [Signature]

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Authorization number: HMR4721
HML Sample Numbers: 011053

HAZARDOUS MATERIALS LABORATORY

2151 BERKELEY WAY, BERKELEY, CALIFORNIA 94704

GC/MS Laboratory Report (page 5 of 10)

COLLECTOR'S NAME:
SAMPLING SITE:Greg Sweet
Devco Marine Coatings
2625 Durahart Street, Riverside 92507

GC/MS VOLATILE ORGANIC ANALYTES - EPA METHOD 8260

CAS NUMBER	VOLATILE ORGANIC ANALYTES	HML#	011053	Storage blank	Method Blank	Quantitation Limit
		COLLECTOR'S#	MW-5-V	---		
		MATRIX	groundwater	water		
		UNITS	microgram/L	microgram/L		microgram/L
74-95-3	dibromomethane	ND		ND	ND	5.0
95-50-1	1,2-dichlorobenzene	ND		ND	ND	5.0
541-73-1	1,3-dichlorobenzene	ND		ND	ND	5.0
106-46-7	1,4-dichlorobenzene	ND		ND	ND	5.0
75-71-8	dichlorodifluoromethane	ND		ND	ND	5.0
75-34-3	1,1-dichloroethane	ND		ND	ND	5.0
107-06-2	1,2-dichloroethane	ND		ND	ND	5.0
75-35-4	1,1-dichloroethene	ND		ND	ND	5.0
156-60-5	trans-1,2-dichloroethene	ND		ND	ND	5.0
156-59-2	cis-1,2-dichloroethene	ND		ND	ND	5.0
78-87-5	1,2-dichloropropane	ND		ND	ND	5.0
142-28-9	1,3-dichloropropane	ND		ND	ND	5.0
594-20-7	2,2-dichloropropane	ND		ND	ND	5.0
563-58-6	1,1-dichloropropene	ND		ND	ND	5.0
10061-01-5	cis-1,3-dichloropropene	ND		ND	ND	5.0
10061-02-6	trans-1,3-dichloropropene	ND		ND	ND	5.0
100-41-4	ethylbenzene	ND		ND	ND	5.0
87-68-3	hexachloro-1,3-butadiene	ND		ND	ND	5.0
591-78-6	2-hexanone	ND		ND	ND	5.0
98-82-8	isopropylbenzene	ND		ND	ND	5.0
99-87-6	p-isopropyltoluene	ND		ND	ND	5.0
78-93-3	methylethyl ketone (2-butanone)	ND		ND	ND	5.0
108-10-1	4-methyl-2-pentanone	ND		ND	ND	5.0
75-09-2	methylene chloride	ND		ND	ND	5.0
91-20-3	naphthalene	ND		ND	ND	5.0

Note: ND = Not Detected; NA = Not Analyzed; D = Detected below quantitation limit

Analyst: QJWSupervisor: WBL

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
HAZARDOUS MATERIALS LABORATORY

2151 BERKELEY WAY, BERKELEY, CALIFORNIA 94704

GC/MS Laboratory Report (Page 6 of 10)

Authorization number: HMR4721
HML Sample Numbers: 011053COLLECTOR'S NAME:
SAMPLING SITE:Greg Sweet
Devco Marine Coatings
2625 Durahart Street, Riverside 92507

GC/MS VOLATILE ORGANIC ANALYTES - EPA METHOD 8260

CAS NUMBER	VOLATILE ORGANIC ANALYTES	HML#	011053	Storage blank	Method Blank	Quantitation limit
		COLLECTOR'S#	MW-5-V			
		MATRIX	groundwater			
		UNITS	microgram/L			
103-65-1	n-propylbenzene		ND	microgram/L	microgram/L	microgram/L
100-42-5	styrene		ND	ND	ND	5.0
630-20-6	1,1,1,2-tetrachloroethane		ND	ND	ND	5.0
79-34-5	1,1,2,2-tetrachloroethane		ND	ND	ND	5.0
127-18-4	tetrachloroethene (perchloroethylene)		ND	ND	ND	5.0
108-88-3	toluene		ND	ND	ND	5.0
87-61-6	1,2,3-trichlorobenzene		ND	ND	ND	5.0
120-82-1	1,2,4-trichlorobenzene		ND	ND	ND	5.0
71-55-6	1,1,1-trichloroethane		ND	ND	ND	5.0
79-00-5	1,1,2-trichloroethane		ND	ND	ND	5.0
79-01-6	trichloroethene (trichloroethylene)		ND	ND	ND	5.0
75-69-4	trichlorofluoromethane		ND	ND	ND	10
96-18-4	1,2,3-trichloropropane		ND	ND	ND	5.0
95-63-6	1,2,4-trimethylbenzene		ND	ND	ND	5.0
108-67-8	1,3,5-trimethylbenzene		ND	ND	ND	5.0
75-01-4	vinyl chloride		ND	ND	ND	5.0
95-47-6	o-xylene		D	ND	ND	5.0
108-38-3	(m & p)-xylenes		D	ND	ND	5.0
1634-04-4	tert-butyl methyl ether (MTBE)		ND	ND	ND	5.0

NOTE: ND = Not Detected; NA = Not Analyzed; D = Detected below quantitation limit
 QL = quantitation limit = concentration of lowest standard x sample dilution factor
 µg/L = microgram per liter; mg/L = milligram per liter; gram/L = gram per liter
 µg/Kg = milligram per kilogram

Comment(s):
 Two vials of sample 011053 were received for GCMS analysis. This sample was analyzed in accordance with Method 5035.

GC/MS Analyst(s): Orlando Garbin

Signature: *Orlando Garbin*

Report Date: 5/20/2002

Viewer: William Lum

Signature: *William Lum*

Review Date: 5/20/2002

Supervisor: William Lum

Signature: *William Lum*

Date: 5/21/2002

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Hazardous Materials Laboratory

GC/MS LABORATORY REPORT (page 7 of 10)

Summary of Method Standard and Method Standard Duplicate Analysis

HML SAMPLE NUMBER(S): 011051 and 011053COLLECTOR'S NUMBER(S): MW-1-V and MW-5-VCOLLECTOR'S NAME: Greg SweetSAMPLING SITE: Devco Marine CoatingsAUTHORIZATION NUMBER: 2625 Durghart Street, Riverside 92507Analysis for: Volatile Organics Sample Spiked: Method blank Matrix: water

Method Standard Spike QC applicable to the following sample(s):

HML sample number(s): 011051 and 011053

GC/MS Method Reference: EPA Method 8260 GC/MS Volatile Organic Analysis

COMPOUNDS (ANALYTES)	METHOD BLANK	AMOUNT ADDED	AMOUNT FOUND	AMOUNT FOUND	AVERAGE AMOUNT FOUND	METHOD SPIKE PERCENT RECOVERY	RPD	QUAN LIMIT
			SPIKE	DUPL				
***** Units	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	%	%	$\mu\text{g/L}$
1,1-DICHLOROETHENE	ND	30.0	32.8	32.8	32.8	109	0.000	5.00
BENZENE	ND	30.0	26.7	26.7	26.7	89.0	0.000	5.00
TRICHLOROETHENE	ND	30.0	22.7	22.5	22.6	75.3	0.885	5.00
TOLUENE	ND	30.0	26.4	26.1	26.3	87.6	1.14	5.00
CHLOROBENZENE	ND	30.0	27.1	26.1	26.6	88.7	3.76	5.00

Note: ND = not detected NA = not analyzed D = detected below quantitation limit.
 $\mu\text{g/L}$ = microgram per liter; mg/L = milligram per liter; gram/L = gram per liter
Amount Found = (amount found in spiked sample - amount found in unspiked sample)
|RUN 1 - RUN 2|

$$\text{RPD} = \text{Relative Percent Difference} = \frac{| \text{RUN 1} - \text{RUN 2} |}{(\text{RUN 1} + \text{RUN 2})/2} \times 100$$

Analyst: Orlando Garbin Supervisor: William LumSignature: Orlando Garbin Date: 5/20/2002Signature: William Lum Date: 5/21/2002

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Hazardous Materials Laboratory

GC/MS LABORATORY REPORT (page 8 of 10)

Q.C. Summary of Matrix Spike Analysis

HML SAMPLE NUMBER(S): 011051 and 011053COLLECTOR'S NUMBER(S): MW-1-V and MW-5-VCOLLECTOR'S NAME: Greg SweelSAMPLING SITE: Devco Marine Coatings2625 Durahart Street, Riverside 92507AUTHORIZATION NUMBER: HMR 4721Analysis for: volatile organic cpdsSample Spiked: HML No. 011053Matrix: groundwaterMatrix spike QC applicable to the following sample(s):
HML sample number(s): 011051 and 011053

GC/MS Method Reference: EPA Method 8260 GC/MS Volatile Organic Analysis

COMPOUNDS (ANALYTES)	UNSPIKED SAMPLE HML No. <u>011053</u>	AMOUNT ADDED	AMOUNT FOUND	AMOUNT FOUND	AVERAGE AMOUNT FOUND	METHOD SPIKE PERCENT RECOVERY	RPD	QUAN LIMIT
			SPIKE	SPK DUP*				
***** Units	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	$\mu\text{g/L}$	%	%	$\mu\text{g/L}$
1,1-DICHLOROETHENE (QC Limits: 79% - 155%)	ND	30.0	33.3	NA*	33.3	111	---	5.00
BENZENE (QC Limits: 37% - 151%)	ND	30.0	26.7	NA*	26.7	89.0	---	5.00
TRICHLOROETHENE (QC Limits: 71% - 157%)	ND	30.0	22.8	NA*	22.8	75.9	---	5.00
TOLUENE (QC Limits: 47% - 150%)	ND	30.0	27.1	NA*	27.1	90.2	---	5.00
CHLOROBENZENE (QC Limits: 37% - 160%)	ND	30.0	26.7	NA*	26.7	88.8	---	5.00

Note: ND = not detected NA = not analyzed D = detected below quantitation limit.
 $\mu\text{g/L}$ = microgram per liter; mg/L = milligram per liter; gram/L = gram per liter
 mg/Kg = milligram per kilogram
Amount Found = (amount found in spiked sample - amount found in unspiked sample)

$$\text{RPD} = \text{Relative Percent Difference} = \frac{|\text{RUN 1} - \text{RUN 2}|}{(\text{RUN 1} + \text{RUN 2})/2} \times 100$$

* There was insufficient sample to prepare a matrix spike duplicate sample.
Duplicate Method Standards were analyzed.

Analyst: Orlando GarbinSupervisor: William LumSignature: Orlando GarbinDate: 5/20/2002Signature: William LumDate: 5/21/2002

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL
HAZARDOUS MATERIALS LABORATORY

GC/MS Laboratory Report (page 10 of 10)

NON-TARGET COMPOUND ANALYSIS - VOLATILE ORGANIC ANALYSIS

HML SAMPLE NUMBER(S): 011051 and 011053
COLLECTOR'S NUMBER(S): MW-1-V and MW-5-V
COLLECTOR'S NAME: Greg Sweet
SAMPLING SITE: Devco Marine Coatings
2625 Durahart Street, Riverside 92507
AUTHORIZATION NUMBER: HMR4721

GC/MS Method Reference: EPA Method 8260 GC/MS Volatile Organic Analysis

METHOD: Initially each sample was analyzed for volatile organic compounds by EPA Method 8260. A Tekmar Purge and Trap apparatus was used to isolate the volatile compounds. Mass spectra of chromatographic peaks which were not identified as target compounds were compared by a computer against 42,000 reference spectra in a mass spectral data base published by the National Bureau of Standards (NBS). Usually the resulting identification are tentative since pure reference compounds are often not available for direct comparison.

GC/MS REPORT FOR NON-TARGET COMPOUNDS ANALYSIS --- VOLATILE ORGANICS (Item 3 & 4)				
HML No.	Collector's No.	Retention Time (min.)	Compounds Detected**	Conc. Level** µg/L
Method Blank	---	---	none detected	---
011051	(MW-1-V)		none detected	
011053	(MW-5-V)		none detected	

NON-TARGET COMPOUNDS ARE THOSE NOT CURRENTLY ON THE TARGET COMPOUND LIST FOR HML METHOD 8260. (See attached report for results of target compound analysis).

- (E: (1) Unknown exhibited mass spectral and chromatographic properties which were identical to those of authentic compound analyzed under identical conditions.
(2) Unknown exhibited some mass spectral and/or chromatographic properties which are consistent with proposed identity.
(3) Identification are tentative and are based on comparison of the sample mass spectra with 42,000 reference spectra in the EPA/NIH Mass Spectral Data Base compiled by the NBS.
(4) For comparison purposes, unknown non-target compound levels are estimated based on the RIC area of the unknown chromatographic peak relative to the RIC area of internal standard used in the GC/MS analyses, usually pentafluorobenzene, 1,4-difluorobenzene, chlorobenzene-d5 & 1,4-dichlorobenzene-d4. Generally, GC peaks greater than 10% of its closest internal standard is searched for tentatively identified compounds.

ANALYST SIGNATURE: Orlando Garbin *Orlando Garbin* DATE: 5/20/2002

SIGNATURE OF SUPERVISING CHEMIST: William S. Lum *William S. Lum* DATE: 5/21/2002



Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: **CA** CERCLIS Number
CAD097574073

CERCLIS Discover Data:

1. General Site Information

Name: Devoe Marine Coatings		Street: 2625 Durahart Street	
City: Riverside	State: CA	Zip Code: 92507	County: Riverside
Latitude: 33°59'16.6"	Approximate Area of Site: 7.5 Acres _____ Square Ft.		Status of Site: <input type="checkbox"/> Active <input checked="" type="checkbox"/> Inactive <input type="checkbox"/> Not Specified <input type="checkbox"/> NA
Longitude: 117°21'31.5"			County Code: 065 Cong. Dist.: 36

2. Owner/Operator Information

Owner: ICI Paints North America / The Glidden Company		Operator: N/A	
Street: 925 Euclid Avenue, Suite 900		Street:	
City: Cleveland		City:	
State: Ohio	Zip Code: 44115	Telephone: (216) 344-8282	State: _____ Zip Code: _____ Telephone: _____
Type of ownership <input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal Agency <input type="checkbox"/> State <input type="checkbox"/> Indian <input type="checkbox"/> County <input type="checkbox"/> Municipal <input type="checkbox"/> Not Specified <input type="checkbox"/> Other		How Initially Identified <input type="checkbox"/> Citizen Complaint <input type="checkbox"/> PA Petition <input checked="" type="checkbox"/> State/Local Program <input type="checkbox"/> RCRA/CERCLA Notification <input type="checkbox"/> Federal Program <input type="checkbox"/> Incidental <input type="checkbox"/> Not Specified <input type="checkbox"/> Other	

3. Site Evaluator Information

Evaluator: RANIA A. ZABANEH	Agency/Organization: Cal EPA / Dept of Toxic Substances Control	Date Prepared: 5/31/02
Street: 5796 Corporate Avenue	City: Cypress	State: CA
Name of EPA or State Agency Contact: Ms. Jere Johnson	Street: 75 Hawthorne Street	
City: San Francisco	State: CA	Telephone: (415) [circled]

4. Site Disposition (for EPA use Only)

Emergency Response/Removal Assessment Recommendations <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Date:	CERCLIS Recommendations: <input type="checkbox"/> Higher Priority SI <input type="checkbox"/> Lower Priority SI <input type="checkbox"/> NFRAP <input type="checkbox"/> RCRA <input type="checkbox"/> Other <input type="checkbox"/> Date:	Signature: Names (typed) Position:
---	--	--

**Potential Hazardous Waste Site
Preliminary Assessment Form - Page 3 of 4**

CERCLIS Number:
CAD 097 57 4073

7. Ground Water Pathway

Is Ground Water Used for Drinking Water Within 4 Miles:

☒ Yes
☐ No

Type of Drinking Water Wells Within 4 Miles (Check all that apply)

☒ Municipal
☒ Private
☐ None

Depth to Shallowest Aquifer:

~ 110 Feet

Karst Terrain/Aquifer Present:

☐ Yes
☒ No

Is There a Suspected Release To Ground Water:

☒ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes ?
☒ No

If Yes, Enter Primary Target Population:

_____ People

Nearest Designated Wetland Protection Area:

☐ 0 - 1/4 Mile
☐ > 1/4 Mile - 4 Miles
☒ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile	0
> 1/4 - 1/2 Mile	0
> 1/2 - 1 Mile	0
> 1 - 2 Miles	90,999
> 2 - 3 Miles	295,832
> 3 - 4 Miles	9,666
Total Within 4-Miles	396,497

8. Surface Water Pathway

Type of Surface Water Draining Site and 15 Miles Downstream (Check all that apply)

☒ Stream ☒ River ☐ Pond ☒ Lake
☐ Bay ☐ Ocean ☒ Other Riverside Canal

Shortest Overland Distance From Any Source to Surface Water:

~ 2,640 Feet
~ 1/2 Miles

Is There a Suspected Release to Surface Water:

☐ Yes
☒ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ > 10 yr - 100 yr Floodplain
☐ > 100 yr - 500 yr Floodplain
☒ > 500 yr Floodplain

Drinking Water Intakes Located Along the Surface Water Migration Path:

☐ Yes
☒ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☒ No

If Yes, Enter Population Served by Primary Target Intakes:

_____ People

List All Secondary Target Drinking Water Intakes:

N/A

Name	Water Body	Flow (cfs)	Population Served

Total within 15 Miles _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes
☒ No

Have Primary Target Fisheries Been Identified:

☐ Yes
☒ No

List All Secondary Target Fisheries:

N/A

Waterbody/Fishery Name	Flow (cfs)

**Potential Hazardous Waste Site
Preliminary Assessment Form - Page 4 of 4**

CERCLIS Number:
CAD 097574073

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☒ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☒ No

List Secondary Target Wetlands:

Water Body	Flow (cfs)	Frontage Miles

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☒ No

Have Primary Sensitive Environments Been Identified:

☐ Yes
☒ No

List Secondary Target Sensitive Environments:

Water Body	Flow (cfs)	Sensitive Environment Type

9. Soil Exposure Pathway

Are People Occupying or Attending School or Day Care on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☒ No

If Yes, Enter total Resident Population:

_____ People

Number of Workers Onsite:

☒ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of the Site.

☐ Yes
☒ No

If Yes, List Each Terrestrial Sensitive Environment:

10. Air Pathway

Is There a Suspected Release to Air:

☐ Yes
☒ No

Enter Total Population on or Within:

Onsite _____

0 - 1/4 Mile _____

> 1/4 - 1/2 Mile _____

> 1/2 - 1 Mile _____

> 1 - 2 Miles _____

> 2 - 3 Miles _____

> 3 - 4 Miles _____

Total Within 4 Miles _____

Wetlands Located Within 4 Miles of the Site:

☐ Yes
☒ No

Other Sensitive Environments Located Within 4 Miles Of The Site:

☐ Yes
☒ No

List All Sensitive Environments Within 1/2 Mile of the Site:

N/A

Distance	Sensitive Environmental Type/Wetlands Area (acres)
Onsite	_____
0 - 1/4 Mile	_____
> 1/4 Mile - 1/2 Mile	_____

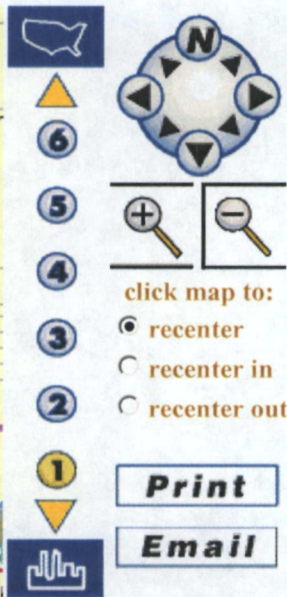
Onsite

0 - 1/4 Mile

> 1/4 Mile - 1/2 Mile

**Flood Data**

- 100 - Year Flood
- 500 - Year Flood
- Water Bodies
- No Data



Map Notes: The [FEMA Digital Q3 Flood Data](#) displayed on this Web site is developed by scanning the existing Flood Insurance Rate Map (FIRM) hardcopy and capturing a thematic overlay of flood risks. Digital Q3 Flood Data files contain only certain features from the FIRM hardcopy in effect at the time of scanning and do not replace the existing FIRM hardcopy maps. The Q3 Flood Data is being displayed here with basemap data from the GDT Dynamap/2000 data set. The Q3 Flood Data is currently available for approximately [1,200 counties](#) across the United States.

Current Map View:

Flood Hazard Areas

[Change View](#)

The maps displayed on this site should be considered an **advisory tool** for general hazard awareness, education, and flood plain management. The flood hazard maps displayed on this site are **not the legal document** to be used when making a single site flood hazard determination. For more information on these maps, please refer to the [Frequently Asked Questions](#) page.

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